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PREFACE.

THE following Catalogue contains the titles of the various books, pamphlets and manuscripts collected in the Library of Dunecht Observatory in the years 1872 to 1888, the whole of which were presented to the Edinburgh Royal Observatory by JAMES LUDOVIC, Earl of Crawford, in the autumn of the year 1888. As regards the composition of the collection, it may be said that the original nucleus was formed by the library of the late Charles Babbage, which was acquired in the year 1872. This circumstance accounts for the presence therein of a considerable number of books on Life Insurance and Annuities, subjects in which Babbage was greatly interested. To the substantial beginning thus made, works in astronomy, physics and pure mathematics were added as occasion offered. In particular, no occasion was lost of securing essays or tracts on comets. A number of very rare works were also transferred from the library at Haigh Hall, Lancashire. The Catalogue having been at first prepared solely for private use was made to include a few works on natural history that were procured for the Mauritius Expedition in 1874.

The printing of the Catalogue was commenced in the Spring of 1887, and was finished in the Summer of 1889, but new acquisitions were entered while the printing was in progress.

The Catalogue is an alphabetical one, arranged chiefly according to the authors' names. Usually the actual names have been preferred to the Latin forms so much used in the middle ages, but there are frequent exceptions to this rule. As far as the biographical sources at our disposal permitted, the Christian name of every author is given in full. As regards the sequence of the letters, the compound characters—å, ä, ö, &c.—have been considered as representing ao, ae, oe, &c.

Variants of the surname are appended in heavy square brackets, **[ ]**, and the whole name is enclosed in similar brackets when it does not occur on the title-page. Whenever a title is contracted, every omission is indicated by ..., and in no case have the words on a title-page been transposed.

A prefixed asterisk shows that a work is either a reprint or has formed part of a larger publication.

As far as the types could be readily obtained, the exact spelling of the original has been followed, even in such minor matters as the use of u and v, the long comma "/", or roman and italic characters. Initial capitals have also been retained, but only in special instances has a whole word been printed in capital letters.

In the case of a work that has no regular title-page, the first few words are copied verbatim, preceded by [begins] or [incipit].

If the title of a book was thought insufficient, or if the title of a later volume was in any way varied, additional details were added within light brackets [ ]. Such details have been derived, as far as possible, from sub-titles, or the text of the work itself. Whenever the title was too much changed to be satisfactorily dealt with in this way, the later portion is treated as a separate work under the same general heading.

Whenever the title of the succeeding volumes merely differed by the number indicating the volume, this was added in brackets, so that *tomus primus* [*secundus*] shows that the work has but two volumes, while *tomus primus* [*-tertius*] shows that there are three volumes in all.

Immediately following the title is given the number of tomes, parts, volumes, &c., *as stated on the title-pages.* The actual number of volumes in the copy described is expressed in figures. Whenever the work consists of a single volume or tract, the number of plates, maps, &c., is concisely stated, together with particulars of the unnumbered leaves (ff.), and the numbered pages, divided into groups whenever the paging begins afresh.

The size is simply indicated as fol., 4°, 8°, &c., with the addition of *oblong* when necessary. In defining the dimensions of a single plate or broadside, the height is stated first.

The place and date of publication have been stated with all possible care as they stand on the title-page, but if they had to be taken from some other part of the book, or derived from extraneous sources, they are enclosed in brackets. If, however, these essential particulars were furnished by the end of the volume the fact is expressly stated. Occasionally a chronogram has been printed in full, but ordinarily a date of this kind is expressed in figures within brackets.

It has been very difficult to decide as to the authorship of many of the academical dissertations, but in cases of special doubt the name of the *Defendens* or *Respondens* has been appended in a note. The word "vita" in the collation denotes that a short autobiography is appended to the paper.

As a means of classifying a number of works that it would otherwise have been difficult to pick out, the following subject-headings have been introduced, but when an author's name is distinctly given in works thus catalogued, they appear again under that name—

Academies, including the publications of Corporations, &c.
Algorithmus.
Astronomical Curiosities.
Aurora Borealis.
Bibliography.
Calculating Machines.
Calendars.
Comets. Division I.—Comets in general.
„ II.—Periodic Comets.
„ III.—Comets of one appearance.
Computus.
Dictionaries.
Earthquakes.
Eclipse of the Sun.
Ephemerides.
Mercury, Transit of.
Observatories.
Star Charts.
Tables.
Venus, Transit of.

The manuscripts are described at the end of the volume.

Several of the above rules were by no means strictly followed in the earlier sheets of the volume, as at first it seemed superfluous to state the paging of an easily accessible book, but eventually the more precise descriptions were found to facilitate identification so much that it was decided to give the exact paging of every work contained in a single volume.

The cataloguing of the Library was commenced and carried on to a considerable extent by Lord CRAWFORD more than ten years ago. At intervals it was continued by my nephew, Mr. ROBERT COPELAND, and was eventually completed by myself, with the able assistance of Dr. L. BECKER, during the last few years, when other occupations would otherwise have delayed its completion. The proofs have received a careful revisal at the hands of Mr. J. P. EDMOND.

The Catalogue is now laid before the scientific world, in the hope that it may prove of use to students of astronomy and kindred sciences in consulting the extensive literature of these subjects.

RALPH COPELAND.

ROYAL OBSERVATORY,
EDINBURGH, *June, 1890.*

A... G...: *See* Araldi, G.

Aa, Pierre van der: Nova orbis terraquei tabula accuratissime delineata.

Mappe-Monde ou description générale du globe terrestre et aquatique. fol. *Leide*, s.a.

— Nouvelle Mappe-Monde, récemment mise en lumière. fol. s.l., s.a.

Abaco, Paolo dall': Incommincia vna practica molto bona et vtile: a ciaschaduno chi vuole vxare larte dela merchadantia: chiamata vulgarmente larte de labbacho. [62] ff.
4° [*In fine*]: *A Triuiso :: A di. 10. Decēbꝛ :: 1478*

Petrus de Abano: *See* Hippocrates.

d'Abbadie, Antoine: *Sur la division décimale de l'angle et du temps. 4 pp. 4° *Paris*, 1870

— *Sur la division décimale du Quadrant. 2 pp. 4° *Paris*, 1870

— *Études sur la Verticale. 8° *Bordeaux*, 1872

— Géodésie d'Éthiopie ou Triangulation d'une partie de la haute Éthiopie exécutée selon des méthodes nouvelles. Vérifiée par R. Radau. 4° *Paris*, 1873

— Observations relatives à la physique du globe faites au Brésil et en Éthiopie. Rédigées par R. Radau. 4° *Paris*, 1873

— *Sur la latitude d'Abbadia, près de Hendaye (Basses Pyrénées). 7 pp. 4° *Paris*, 1875

— *Recherches sur la verticale. 8° *Bruxelles*, 1881

Abbatt, Richard: Treatise on the Calculus of Variations. 8° *London*, 1836
(*See* Todhunter, Hist. calc. of Var., p. 460.)

— The Principles and Practice of Linear Perspective divested of all difficulty. 1 plate, 85 pp. 8° *London*, 1853

Abel, Frederick Augustus: *On Accidental Explosions. 8° *Woolwich*, 1875

— *Explosive Agents applied to industrial purposes. 8° *London*, 1880

Abel, Niels Henrik: Mémoire sur les équations algébriques où on démontre l'impossibilité de la résolution de l'équation générale du cinquième dégré. 8 pp. 4° *Christiania*, 1824

— Oeuvres complètes, avec des notes et développements, réd. par B. Holmboe. 2 vols. 4° *Christiania*, 1839

— *See* Genocchi, A.

Aben Ezra: [Fol. a_2] Incipit liber Abraham iudei de natiuitatibus. 4° [*In fine*]: *Finit felicīt opusculū abrahe iudei de natiuitatibus cum exēplarib9 figuris singulis domibus antepositis: Et magistralis cōpositio astrolabij Hanrici bate. Impressū venetijs arte ⁊ impensis Erhardi ratdolt de augusta. Anno salutifere incarnatiōis dn̄ice. M. cccc. lxxxv. nona Kalendas Januarij.*

30 ff. Ed. princeps. Hain 21.

Aben Ezra, B. 1093, D. 1168.

Correctly should be, Abraham ben Meir ben Ezra, also called Evenare and Ebenare; chiefly known to us by his commentary on the Old Testament.

See Ersch und Gruber, Encycl. Vol. I. art., "Aben Ezra," for notes on his works by Hartmann.

— Abrahe Auenaris Judei Astrologi peritissimi in re iudiciali opera: ab excellentissimo Philosopho Petro de Abano post accuratam castigationem in latinum traducta. xcvi. ff., 2 cols., 4° [*In fine*]: *Ex officina Petri Liechtenstein.*
Venetijs, Anno Dñi. 1507

Abetti, Antonio: Osservazioni astronomiche fatte all' osservatorio di Padova ... 1886.
8° [*Padova*], 1886

— *Continuazione delle osservazioni astronomiche fatte a Padova nel 1886, ed Appendice. 12 pp. 8° *Venezia*, 1887

Abney, William de W.: *On Photographic Irradiation. 8° *London*, 1875

Åbom, Bror Fr. Ju.: Om Foci, directrices och dirigerande plan hos ytor af andra graden. 8° *Upsala*, 1866

Abraham Avenaris Judæus: *See* Aben Ezra.

Abraham Ben Chija or Chaja: Sphæra mvndi, avtore Rabbi Abrahamo Hispano filio R. Haijæ.

Arithmetica secvndvm omnes species suas autore Rabbi Elija Orientali.

Qvos libros Osvvaldvs Schreckenfuchsius uertit in linguam latinam, Sebastianus uero Munsterus illustrauit annotationibus.

4° [*In fine*]: *Basileæ per Henrichvm Petrvm Mense Avgvsta, Anno M. D. XLVI.*

In Hebrew, 351 pp. In Latin, 207 pp.

Abuhali, Ben-Omer: Astrologia terrestris oder irrdische Sterndeutungs-Lehre,...aus dem Arabischen.... 160 pp. 8° *Freystadt*, 1767

ACADEMIES.

The Publications of all Learned Societies, Corporations, Academies, &c., come under this head, in order of places.

Aberdeen University : Catalogue of Books added to the University Library, Aberdeen, during 1872-73. 19 pp. 8° *Aberdeen*, 1873

Adelaide, Public Library of South Australia : Report of the...governors...for 1885-6. 25 pp. fol. *Adelaide*, 1886

American Association for the Advancement of Science : Address to Section A of the American Association for the Advancement of Science.
* by S. P. Langley, 1879. 8° *Salem*, 1879
* by Asaph Hall, 1880. 8° *Cambridge*, 1880

American Philosophical Society : Catalogue of the American Philosophical Society's Library. 634 pp. 8° *Philadelphia*, 1863

Arcueil, Société d'Arcueil : Mémoires de Physique et de Chimie de la Société d'Arcueil. Vols. 1, 2, 3. 8° *Paris*, 1807-9-17

Associazione Italiana per le osservazioni delle Meteore luminose : Osservazioni delle Meteore luminose, 1882-85. 12° *Torino*, 1881-85

Berlin, Physikalische Gesellschaft : Die Fortschritte der Physik in den Jahren 1871-2, '73, '74, '75, '76, '77, '78, 1-2, '80.
Jahrg. xxvii., xxix.-xxxiv., xxxvi. 8° *Berlin*, 1876-84

— Verhandlungen, 1882-83. Band 1-2. 8° *Berlin*, 1882-84

Berlin, Königliche Akademie der Wissenschaften : Miscellanea Berolinensia ad incrementum scientiarum, ex scriptis Societati Regiæ Scientiarum exhibitis edita, cum figuris æneis et indice materiarum. Vol. I., and Continuatio I. and II. 1 vol. 4° *Berolini*, 1710-23-27
Autographs of Wm. Whiston and Chas. Babbage.

— Histoire...avec les Mémoires...tirez des Registres de cette Académie. 1745-55, 1765-69. 16 vols. 4° *Berlin*, 1746-71

— Nouveaux mémoires...avec l'histoire.
[Continuation of "Histoire...1769."] 1770-86. 17 vols. 4° *Berlin*, 1772-88

Berlin, Königliche Akademie der Wissenschaften —*continued.* Mémoires...depuis l'avènement de Fréderic Guillaume II. au throne Avec l'histoire pour le même temps.
[Continuation of "Nouveaux Mémoires, 1786."] 1786-97. 7 vols. 4° *Berlin*, 1792-1800

— Mémoires ... depuis l'avènement de Fréderic Guillaume III. au trône. Avec l'histoire pour le même temps.
[Continuation of "Mémoires...1797."] 1798-1804. 6 vols. 4° *Berlin*, 1801-7

— Abhandlungen der Königlichen Akademie der Wissenschaften in Berlin. Nebst der Geschichte der Akademie in diesem Zeitraum.
[Continuation of "Mémoires...1804."] 1804-75. 21 vols. 4° *Berlin*, 1815-76

— Monatsbericht der Königlich Preussischen Akademie der Wissenschaften zu Berlin. Nov. 1860, Mai 1873, 1877, 1878. 8° *Berlin*, 1860-78

— Monatsberichte. Register...vom Jahre 1836 bis 1858. 8° *Berlin*, 1860

— Sitzungsberichte,...Jahrg. 1883-84. 8° *Berlin*, 1883-84

Berlin, Königl. Universität : Index lectionum in Universitate Litteraria Friderica Guilelma, 1843-44. 10 pp. 4° *Berolini*, 1843

Berlin, Königl. Preuss. Geodätisches Institut : Publicationen : Astronomisch-geodätische Arbeiten im Jahre 1870. Herausgegeben von C. Bruhns. 4° *Leipzig*, 1871

— Astronomisch-geodätische Arbeiten im Jahre 1871. Herausg. von C. Bruhns. 4° *Leipzig*, 1873

— Astronomisch-geodätische Arbeiten in den Jahren 1872, 1869, und 1867. Herausg. von C. Bruhns. 4° *Leipzig*, 1874

— Astronomisch-geodätische Arbeiten im Jahre 1877. 4° *Berlin*, 1878

— Astronomisch-geodätische Arbeiten im Jahre 1878. 4° *Berlin*, 1879

— Astronomisch-geodätische Arbeiten in den Jahren 1879 und 1880. 4° *Berlin*, 1881

— Bestimmung der Längendifferenz zwischen Berlin und Wien auf telegraphischem Wege ausgeführt von W. Förster und E. Weiss. Herausg. von C. Bruhns. 4° *Leipzig*, 1871

Berlin, Königl. Preuss. Geodätisches Institut—*continued.* Publicationen: Die Ausdehnungscoefficienten der Küstenvermessung. Von A. Westphal. 4° *Berlin*, 1881

— Das Mittelwasser der Ostsee bei Swinemünde. Bearbeitet von Wilhelm Seibt. 4° *Berlin*, 1881

— Präcisions-Nivellement der Elbe. Auf Veranlassung der Elbstrom-Baubehörden von Preussen, Mecklenburg und Anhalt ausgeführt von Wilhelm Seibt. 4° *Berlin*, 1878

— Präcisions-Nivellement der Elbe. Zweite Mittheilung. Von der Seevemündung bis auf die Insel Neuhof. Ausgef. von W. Seibt. 4° *Berlin*, 1881

— Astronomisch-geodätische Ortsbestimmungen im Harz im Jahre 1881...von Moritz Löw. 4° *Berlin*, 1882

— Das Hessische Dreiecksnetz. 4° *Berlin*, 1882

— Gradmessungs-Nivellement zwischen Swinemünde und Konstanz. Bearbeitet von Wilhelm Seibt. 4° *Berlin*, 1882

— Das Rheinische Dreiecksnetz.
Heft II. Die Richtungs-Beobachtungen.
„ III. Die Netzausgleichung.
4° *Berlin*, 1878-82

— Winkel- und Seitengleichungen. Von Alfred Westphal.
Ueber die Beziehung der bei der Stations-Ausgleichung gewählten Nullrichtung von Wilhelm Werner. 4° *Berlin*, 1880

— Der Einfluss der Lateralrefraktion auf das Messen von Horizontwinkeln. Von A. Fischer. 4° *Berlin*, 1882

— Bestimmung des Längenunterschiedes ... von Göttingen und Altona. Von C. A. F. Peters. 4° *Kiel*, 1880

— Die Figur der Erde. Ein Beitrag zur Europäischen Gradmessung von Heinrich Bruns. 4° *Berlin*, 1878

Birmingham, Philosophical Institution: Report of the Committee...1836...With...Meteorological Journal...Table of the Steam Engines in Birmingham from 1780 to 1835, and Tables of Mortality...from 1831 to 1835. 8° *Birmingham*, 1836

Bologna: Opuscoli scientifici. 4 vols. 4° *Bologna*, 1817-23

Boston, American Academy of Arts & Sciences: Memoirs. Vol. I.-IV. 4° *Boston*, 1785-1818
New Series Vol. I.-VIII. 4° *Boston and Cambridge*, 1833-61

Boston Scientific Society: Science Observer. Vol. I.-IV. 8° *Boston*, 1877-85

Bristol Observing Astronomical Society: Report of Observations made by the members, 1869-70. 1 plate, 26 pp. 8° *Bristol*, 1871

Brussels, Académie Royale des Sciences, des Lettres, et des Beaux-arts de Belgique: Annuaire. 1846-65. Tome XII.-XXXI. 12° *Bruxelles*, 1846-65

— Bibliographie Académique ou liste des ouvrages publiés par les membres, correspondants et associés résidents. 1854. 12° *Bruxelles*, 1855

— Bulletin.
2me Sér. Tome XX., 1865. 8° *Bruxelles*, 1865

— Tables générales, 2me Sér. Tome I.-XX. (1857 à 1865). 8° *Bruxelles*, 1867

Cambridge, Analytical Society: Memoirs. Vol. I. 4° *Cambridge*, 1813

Cambridge, Philosophical Society: Transactions. Vol. I., II., IV.-VI., VIII. 4° *Cambridge*, 1822-47

Cambridge University: Remarks on the Replies to the Observations on the Plans for the New Library, &c.
By a Member of the first Syndicate.
104 pp. 8° *Cambridge*, 1831

— Cambridge University Reporter. N° 298. June 20, 1879.
Report of the Syndics of the University Library [and Rules...observed in forming...Catalogue.]. 4° *Cambridge*, 1879

Cherbourg, Société Nationale des Sciences Naturelles et Mathématiques: Catalogue de la Bibliothèque. Rédigé par Auguste Le Jolis.
2nde Édn Part I. 84 pp. 8° *Cherbourg*, 1881

Chicago Astronomical Society: *See* Observatories.

Christiania, Norske Meteorologiske Institut: Jahrbuch. 1877-81.
Herausgegeben von H. Mohn. 4° *Christiania*, 1879-82

Copenhagen, Kongelige Danske Videnskabernes Selskab: Oversigt over det Kongelige Danske Videnskabernes Selskabs Forhandlinger og dets Medlemmers Arbejder. 1840-85.
8° *Kjöbenhavn*, 1840-85

Danzig, Naturforschende Gesellschaft: Schriften der naturforschenden Gesellschaft in Danzig.
Neue Folge. Bd. IV. Heft. 1-4.
„ V. „ 1-4.
8° *Danzig*, 1880-83

— Danzig in naturwissenschaftlicher und medizinischer Beziehung. 8° *Danzig*, 1880

Dublin, Royal Dublin Society: Scientific Transactions. Series II. Vol. I., II., III., 1-13.
4° *Dublin*, 1877-87

— Scientific Proceedings. 8° *Dublin*, 1878-87
New Series—Vol. II., parts 1-5; vols. III. and IV.; vol. V., parts 1, 6.

Dublin, Royal Irish Academy: Transactions. Vol. XII. 4° *Dublin*, 1815

— Proceedings. Vol. I., 1, 2; II., 2, 3; IV., 1; V., 1, 3; VI., 2, 3; X., 1, 2, 3.
8° *Dublin*, 1837-68

Edinburgh, Highland Society: Report on Friendly or Benefit Societies, exhibiting the Law of Sickness, as deduced from Returns by Friendly Societies in different parts of Scotland; to which are subjoined Tables of the rates of contribution... 288 pp. 8° *Edinburgh*, 1824

Edinburgh, Royal Society: Transactions. Vol. I.-XXIX. 4° *Edinburgh*, 1788-1880

Edinburgh, Scottish Meteorological Society: Journal of the Scottish Meteorological Society. New Series 28-29, 31-36, 39-63. Third Series 1.
8° *Edinburgh and London*, 1871-84

— Memorandum regarding aid from the State to the Scotch Meteorological Society. (Private.)
11 pp. 4° [*Edinburgh*] 1877

— Answer by Her Majesty's Government to Deputation. 15 pp. 4° [*Edinburgh*] 1877

Europe, Centralbureau der Europäischen Gradmessung: Zur Entstehungsgeschichte der Europäischen Gradmessung. Von J. J. Baeyer.
4° *Berlin*, [1862]

— Astronomische Bestimmungen für die Europäische Gradmessung aus den Jahren 1857-66. Herausgegeben von J. J. Baeyer.
4° *Leipzig*, 1873

Europe, Centralbureau der Europäischen Gradmessung—*continued.* Verhandlungen der vom 27. September bis 2. October 1877 zu Stuttgart abgehaltenen fünften allgemeinen Conferenz der Europäischen Gradmessung. 4° *Berlin*, 1878

— Verhandlungen der vom 13. bis 16. September 1880 zu München abgehaltenen sechsten allgemeinen Conferenz der Europäischen Gradmessung. 4° *Berlin*, 1881

— Verhandlungen der vom 4. bis 8. September 1878 in Hamburg vereinigten permanenten Commission der Europäischen Gradmessung.
4° *Berlin*, 1879

— Verhandlungen der vom 16. bis 20. September 1879 in Genf vereinigten permanenten Commission der Europäischen Gradmessung.
4° *Berlin*, 1880

Florence, Accademia del Cimento: Essayes of Natural Experiments made in the Academie del Cimento. Written in Italian by the Secretary...Englished by Richard Waller.
4° *London*, 1684

— Saggi di naturali Esperienze;...terza edizione Fiorentina, preceduta da notizie storiche dell' Accademia. 4° *Firenze*, 1841

Free Libraries and Museums: Conference of Representatives of Municipal Corporations, held in...Birmingham...5th Jan., 1877.
8° *Birmingham*, 1877

Glasgow, University: The Glasgow University Calendar. 1873-74. 8° *Glasgow*, 1873

Glasgow, Mitchell Library: Report on the Mitchell Library, Glasgow. 1880. 8° *Glasgow*, 1881

Göttingen, Magnetischer Verein: Resultate aus den Beobachtungen. 1836-37, '39-41.
8° *Leipzig*, 1837-43

— Atlas des Erdmagnetismus ... Supplement zu den Resultaten... 4° *Leipzig*, 1840

— *See* Gauss and Weber.

Haarlem, La Société hollandaise des Sciences à Harlem: Archives néerlandaises des Sciences exactes et naturelles publiées par la Société...
Tome I.-XX.
Table générale et raisonnée des matières—I.-X. in Tome X. 8° *La Haye*, 1866-75
Harlem, 1876-86

Haarlem, Musée Teyler: Archives. Vols. I.-V. Sér. II., vol. I., II., 1, 2, 3. 8° *Harlem*, 1866-85

— Catalogue de la Bibliothèque. Livr. 1, 2. 8° *Harlem*, 1885

Hoboken, Stevens Institute: Announcement of the Stevens Institute of Technology; a school of mechanical engineering, founded by Edwin A. Stevens, Esq.
6 plates, 69 pp. 8° *New York*, 1873

Riunione degli Scienziati Italiani: Diario della terza riunione ... convocati in Firenze nella seconda metà del Settembre, 1841.
N^os^ 1-15. (Sett. 15—Ott. 1, 1841.) 4° *Firenze*, 1841

Leeds Philosophical and Literary Society: Annual Reports—1876-78, '85-86. 8° *Leeds*, 1877-86

Leipzig, Astronomische Gesellschaft: Publicationen, 1-18. 4° *Leipzig*, 1865-86

1. Hülfstafeln zur Berechnung specieller Störungen.
2. Lesser, Tafeln der Metis.
3. Weiler, Ueber das Problem der drei Körper.
4. Houël, Tables pour la réduction du temps en parties décimales du jour.
5. Auwers, Reduction der Beobachtungen der Fundamentalsterne am Passageninstrument zu Palermo 1803-1805.
6. Rechtwinklige und Polarcoordinaten des Jupiter.
7. Auwers, Veränderliche Eigenbewegungen. Theil 2, Bestimmung der Elemente der Siriusbahn.
8. Schjellerup, Genäherte Oerter der Fixsterne, für die Epoche 1855.
9. Lesser, Tafeln der Pomona.
10. Becker, Tafeln der Amphitrite.
11. Winnecke, Bestimmung der Parallaxe des zweiten Argelander'schen Sternes.
12. Weiler, Grundzüge einer neuen Störungstheorie.
13. Spörer, Beobachtungen der Sonnenflecken.
14. Auwers, Fundamental-Catalog für die Zonenbeobachtungen am nördlichen Himmel.
15. Hartwig, Durchmesser der Planeten Venus und Mars.
16. Oppolzer, Syzygien-Tafeln für den Mond.
17. Auwers, Mittlere Oerter von 83 südlichen Sternen für 1875.
18. Romberg, Genäherte Oerter der Fixsterne für 1855.

— Vierteljahrsschrift, Jahrgang 1-21. 8° *Leipzig*, 1866-86

1. Supplementheft (Jahrg. 3). Von Asten, Hülfstafeln zur Reduction der in der "Hist. Cél. Française" enthaltenen Beobachtungen.
2. „ (Jahrg. 4). Tafeln zur Reduction von Fixstern-Beobachtungen, 1726-50.
3. „ (Jahrg. 14). Bruhns, Catalog der Bibliothek.

— Scheinbare Oerter von 529 Sternen für das Jahr 1870. 8° *Berlin*, 1870

— Mittlere Oerter von 539 Sternen und scheinbare Oerter für 1871 bis 1882. 12 vols. 8° *Berlin*, 1870-81

Leipzig, Astronomische Gesellschaft—*continued.*
* The Meeting of the "Astronomische Gesellschaft" at Strassburg, September 22-24, 1881. 6 pp. 4° *Dublin*, 1881

— Onzième assemblée générale de la Société astronomique réunie à Genève du 19 au 22 Août 1885, par Le col. Émile Gautier. 17 pp. 8° *Genève*, 1885

Leipzig: Opuscula omnia Actis Eruditorum Lipsiensibus inserta, quæ ad universam Mathesim, Physicam, Medicinam, Anatomiam, Chirurgiam, et Philologiam pertinent;...1682 ad 1740. 7 vols. 4° *Venetiis*, 1740-46

Lisbon, Sociedad de Geographia de Lisboa: Boletim. 6ª Serie, N° 1, 2, 5-11. 8° *Lisboa*, 1886

Liverpool Astronomical Society: Abstracts of Proceedings of the Liverpool Astronomical Society. Vol. I., II., 1882-84. 8° *Liverpool.*

— Journal. Vol. III.-V., 1884-87. 8° *Edinburgh.* 8° *Liverpool.*

— Transactions, 1883-84.
No. 2. Reports from the Solar, Planetary, Lunar, and Variable Star Sections.
3. A Catalogue of the magnitudes of 500 stars in Auriga, Gemini, and Leo minor...
4. Report from Planetary Section...
8° *Liverpool*, 1884

— Publications.
No. I. (1.) Photographic Photometry.
(2.) Spectroscopic Observations.
8° *Liverpool*, 1887

— [Report of] Third Annual Meeting. August, 1884. 7 pp. 8° *Liverpool*, 1884

— List of Members, 1st March, 1887. 16 pp. 8° *Liverpool*, 1887

Liverpool, Literary and Philosophical Society: Proceedings, Vol. XXXI.-XXXVII., XXXIX.-XL. 8° *London and Liverpool*, 1877-86

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Editio princeps.

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114 ff. 4° *Venetiis*, 1492

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— Margarita Facetiarum Alfonsi Aragonum Regis Vafredicta Proverbia Sigismundi & Friderici tertii... 4° *Argentoratum*, 1509

— Divi Alphonsi Romanorvm et Hispaniarvm Regis, astronomicæ tabulæ in propriam integritatem restitutæ, ad calcem adiectis tabulis...cum plurimorū locorū correctione, & accessione variarū tabellarū ex diuersis autoribus...Qua in re Paschasius Hamellius...sedulā operam suam præstitit.

viii.+274 pp. 4° *Parisiis, Ex officina Christiani Wecheli.* Anno 1545.

Autograph of W. Molyneux.

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30 ff. 4° [*Col.*]: *Impressum Ferrarie arte & impensa Andree galli*, 1493.

Hain 822.

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12° *Paris* (Wechel), 1546

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8° [*In fine*]: *Arithmethice* (sic) *practice seu Algorismi Tractatus a Petro sanchez Ciruelo nouiter cōpilatus explicit. Impressus Parisius In Bellousu per Magistrum Guidonē Mercatorē, Anno domini.* 1495. *die. 22. februarii.*

Petit livre fort rare, non mentionné par Hain ni par de Morgan. Marque de l'imprimeur gravée sur bois au titre. Chasles 1928.

— Algorithmus de Integris, Minutijs vulgaribus ac proportionibus Cum annexis detri falsi aliisque Regulis.

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— Algorithmus līealis numerationem Additionem Subtractionem Duplationem Mediationē Multiplicationē Diuisionē et progressionē vna cum regula de Tri perstringens.

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— Algorismvs novvs de integris, de minutijs vulgaribus, de minutijs physicis, addita regula proportionum tam de integris ꝙ de fractis, quæ vulgo mercator⁊ regula dicitur.

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— Algorismus nouus de ītegris compendiose sine figurarum (more Italorum) deletione compilatus. Artem numerandi omnemque viam calculandi enucleatim breuissime edocens. vna cum Algorismis de minucijs vulgaribus videlicet et phisicalibus... 10 ff. 36 lines on v. A_5 4° s.l. s.a.

(Printed in Holland, beginning of 16th Century.)

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Alhazen: Opticæ Thesavrvs. Alhazeni Arabis libri septem, nunc primùm editi. *Eivsdem liber De Crepvscvlis & Nubium ascensionibus.* Item Vitellonis Thvringopoloni Libri X. Omnes instaurati, figuris illustrati & aucti, adiectis etiam in Alhazenum commentarijs, A' Federico Risnero. fol. *Basileæ,* 1572

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Correctly Abu Ali el Hassan ben al Hassan ben Haitam.
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AMy lecteur qui cerches les mesures,
Et quantitez des lignes & figures,
Et de tous corps, par art de Geometrie,
Et plusieurs poinctz & secretz d'industrie,
. . . . . .
¶ Auoir te fault ce liure, qui fut faict
Dedans Noyon par Charles de Bouuelles.
Qui n'est iamais sans faire'œuures nouuelles.
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— Atlas der Astronomie. Separat-Ausgabe aus der zweiten Auflage des Bilder-Atlas.
12 plates, 31 pp. obl. fol. *Leipzig*, 1872

— * Bestimmung der Längendifferenz zwischen Leipzig und Wien auf telegraphischem Wege ausgeführt von C. Bruhns und E. Weiss.
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— Über das meteorologische Bureau für Witterungsprognosen im Königreich Sachsen.
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— *See* Encke, Johann Franz.
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Brunacci, Vincenzo: Trattato dello Ariete Idraulico. 2 plates, 14 ff.+163 pp. 4° *Milano*, 1810

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3 cuts, 4 pp. 8° *Berlin*, 1886

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— * Delle macchine locomotive e stazionarie ad uso di motore pei trasporti celeri sopra le vie di terra e di acqua in Lombardia. 34 pp. 8° *Milano*, 1840

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— Mappemonde Physique, Politique, et Astronomique, extraite des Cartes manuscrites dressées pour l'Institution géographique et historique des enfans de France. 3 maps, fol. *Paris*, 1761

— Table des Zones et Climats Terrestres pris de l'Equateur au Pole, et de son application particuliere sur une Carte des Roy.^mes de l'Europe, avec la distance directe de leurs Capitales à Paris. fol. *Paris*, 1761

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— *See* De l'Isle, Guillaume.

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Buck, Friederich Johann: Leichtere Auflösungen einiger schwehren trigonometrischen Aufgaben, zum Gebrauch der Liebhaber mathematischer Wissenschaften. 1 plate, 22 pp. 4° *Königsberg*, 1761

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Bücher, Christian Bernhard, et Reinhart, August Wilhelm: De aequilibrio fluidorum intra canales communicantes contentorum. 1 plate, 44 pp. 4° *Vitembergae*, 1719

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Büchten, P. D.: Die wahre Quadratur des Cirkels. 1 plate, 12 pp. 4° *Berlin*, 1756

— De Quadratura vera Circuli. 1 plate, 12 pp. 4° *Berolini*, 1756

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Büthner, Friedrich: Natürliche und Mathematische Betrachtung Des Fewer-Zeichens / Welches Den 4. Maji des Nachts halb 12. von der Wacht gesehen worden. Nebenst Angefügtem Bericht Historischer Erzehlung...
6 ff. 4° *Dantzig*, 1665

The author uses a "*Vater unser*" as a measure of time, considering it equal to "*10 Scrupula*" or seconds.

— Astronomische und Astrologische Beschreibung und Betrachtung / Seltzamer Begebenheiten Des Cometen / ... 1 plate, 24 pp. 4° *Dantzig*, 1681

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Büttner, Johann Sebald: De Josephi Blancani Rotunditate Globi terraquei perfecte sphærica.
16 ff. 4° *Lipsiæ*, 1701

Bugge, Thomas: * Tentamen continens Theoriam Machinæ sublicarum. 10 pp. 4° *London*, 1779

— Observationes Astronomicæ annis 1781, 1782 & 1783, institutæ in Observatorio Regio Havniensi et cum tabulis astronomicis comparatæ.
12 plates, cxx. + 141 pp. 4° *Hauniæ*, 1784

— * Observation paa Maane-Formorkelsen den 10 September 1783. 5 pp. 4° *Kjøbenhavn*, 1785

— * Nogle nye Opdagelser ved Fixstiernerne β i *Perseus*, o og π i *Skytten*, samt β i *Steenbukken*.
4 pp. 4° *Kjøbenhavn*, 1785

— * Mercurs Gang forbie Solen den 9 November 1802 observeret af T... B...
1 plate, 15 pp. 4° *Kjøbenhavn*, 1804

— * Om Formörkelser i Almindelighed og Maaneformörkelsen den 26 Januar 1804 i Særdeleshed.
8 pp. 4° *Kjøbenhavn*, 1804

— * Betragtninger over Cometer i Almindelighed og Observationer paa Cometen i October, November og December 1807.
3 plates, 78 pp. 4° *Kjøbenhavn*, 1808

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31 pp. 8° *Göttingen*, 1876

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Bullialdus, Ismael, [Boulliau]: Astronomia philolaica. Opvs novvm, in quo motus Planetarum per nouam ac veram Hypothesim demonstrantur. ...Superque illa Hypothesi Tabvlæ constructæ... Addita est nova methodvs cvivs ope Eclipses Solares...expeditissimè computantur. Historia ortvs et progressvs astronomiæ ...
28 + 469 + 232 pp. fol. *Parisiis*, 1645

— Opvs novvm ad Arithmeticam Infinitorum libris sex comprehensum, in quo plura à nullis hactenus edita demonstrantur.
8 plates, 2 ff. + 426 pp. fol. *Lutetiæ Parisiorum*, 1682.

Bundy, Karl Heinrich: De Motu Planetarum epicycloidico adparente et vero composito.
10 pp. 4° *Gryphiswaldiæ*, 1768

Bungus, Peter: Numerorum Mysteria ex abditis plurimarum disciplinarum fontibus hausta: Opus maximarum rerum Doctrina, & copia refertum... Postrema hac editione ab Auctore ipso copioso Indice, & ingenti appendice auctum.
46 ff. + 676 + 90 pp. + 63 ff. 4° *Lutetiæ Parisiorum*, 1618

Bunsen, Carl Christian Wilhelm: Arithmeticae Logarithmicae succincta Explicatio.
22 + 2 pp. 4° *Helmstadii*, 1765

Buquoy, le Comte de: Exposition d'un nouveau principe général de Dynamique, dont le principe des vitesses virtuelles n'est qu'un cas particulier.
30 pp. 4° *Paris*, 1816

Burckhard, Anthoni Ernst: Ertz-Herzogliche Handgriffe Desz Zirckels und Linials / Oder Auszerwählter Anfang zu denen Mathematischen Wissenschafften. ...
Many plates, 10 ff. + 188 pp. 4° *Augspurg*, 1689

Burckhardt, Johann Carl: Methodus combinatorio-analytica evolvendis Fractionum continuarum valoribus maxime idonea.
16 pp. 4° *Lipsiae*, 1794

— Tables astronomiques publiées par le Bureau des Longitudes de France. Tables de la Lune.
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— Tables des diviseurs pour tous les nombres du premier, deuxième et du troisième Million.
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Burford, Robert: *See* Ross, —.

Burg, Adam: Sammlung trigonometrischer Formeln. Zum Gebrauche für alle der Mathematik Beflissenen. Auch als Nachtrag zu seinem Handbuch der Trigonometrie.
x. + 119 pp. 4° *Wien*, 1827

Burgess, J.: * On hypsometrical measurements by means of the Barometer and the boiling-point Thermometer, with Tables for facilitating the computation of heights both by natural numbers and by logarithms.
31 pp. 8° *Calcutta*, 1859

Burgh, N. P.: Modern Marine Engineering.
36 plates, 403 pp. 4° *London*, 1872

Burmeister, Hermann: * Remarks on the cause of the Sound produced by Insects in flying.
1 plate, 6 pp. 8° *London*, 1837

Burnham, Sherburne Wesley: * Double-Star Discoveries with the 18½-inch Chicago Refractor.
7 pp. 8° *New Haven*, 1877

Burnham, Sherburne Wesley—*cont.* * Double Stars discovered by Mr. Alvan G. Clark.
7 pp. 8° *New Haven*, 1879

— Report to the Trustees of the "James Lick Trust" of observations made on Mount Hamilton with reference to the location of Lick Observatory.
1 plate, 2 maps, 32 pp. 4° *Chicago*, 1880

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Burning Glasses: [The Article on "Burning Glasses, or, Burning Mirrors," from the Encyclopædia Britannica, Seventh Edition.]
2 plates, 16 pp. 4° *Edinburgh*, s.a.

Burns, John: The approaching Transit of Venus: an Address delivered at the Meeting of the Glasgow Foundry Boys Society.
14 pp. 8° [*Glasgow*], 1874

Burrow, Reuben: A restitution of the geometrical treatise of Apollonius Pergæus on Inclinations. Also the theory of gunnery; or the doctrine of projectiles in a non-resisting medium.
39 pp. 4° *London*, 1779

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3 plates, 22 pp. 4° *Dublin*, 1880

— * Recent Measures of Double Stars.
3 pp. 4° *Dublin*, 1881

— * Note on the aspect of Mars in 1881-1882.
3 pp. 4° *Dublin*, 1882

Burton, George: The analysis of two chronological tables...the one being a table to associate, scripturally, the different chronologies of all ages and nations: the other, to settle the Paschal Feast, from the beginning, to the end of known time. 25 pp. 4° *London*, 1787

Busch, Georg: Von dem Cometen / welcher in diesem 1572. Jar in dem Monat Nouembris erschienen. 13 ff. 4° *Erffurdt*, 1573
Woodcut on title.

— Die andere Beschreibung von dem Cometen / welcher in dem vergan (deest) 1572. Jar erschienen / ... [Colophon] Gedruckt zu Erffurdt / zu dem bundten Lawen / bey S. Paul.
25 ff. 4° *Erffurdt* [1573]
Woodcut on title.
This seems to be a later and augmented edition of Busch's tract on the New Star of 1572. It is described by Tycho Brahe.

Busch, Georg—*continued.* Erklerung Der grossen und gresslichen Finsternis / Welche inn dem 1573. Jahr / an dem 8. tag Decembris an dem Mond erschienen / ... Sampt derselbigen ... bedeutung / die in diesem 74. Jahr an dem 11. tag Martij jren anfang hat / ... [Colophon] Gedruckt zu Erffurdt / Durch Conradum Dreher / hinder der Himmelpforten.
10 ff. 4° *Erffurdt*, 1574

— Beschreibung / von zugehörigen Eigenschafften, vnd natürlicher Influentz / des grossen...Cometen / welcher in diesem 1577. Jahre erschienen.
3 cuts, 16 ff. [the last of which is blank] 4° *Gedruckt zu Erffurdt / durch Esaiam Mechlern /* 1577.
Woodcut on title.

Bushnell, D.: * General Principles and Construction of a Sub-marine Vessel.
7 pp. 4° *London*, 1800

Busmann, Johann Eberhard: De Veneris et Mercurii Phasibus. 8 ff. 4° *Wittebergæ*, 1664

Buys, Egbert: *See* Sewel, William.

Buzengeiger, Carl: Leichte und kurze Darstellung der Differential-Rechnung.
54+3 pp. 4° *Ansbach*, 1809

Buzzetti, Curzio: Ecclissi totale di Sole visibile in gran parte dell'Europa ... 8 luglio 1842. Colla descrizione generale degli ecclissi di luna e di sole... 1 map, 13 pp. 8° *Milano*, 1842

Byrne, Oliver: A Short Practical Treatise on Spherical Trigonometry; ...
37 pp. 8° *London*, 1835

— How to measure the Earth with the Assistance of Railroads. 12 pp. 8° *Newcastle*, 1838

— *See* Spon, E. & F. N.

C., J. G.: Précis d'une nouvelle Méthode pour réduire à de simple procédés analytiques la démonstration des principaux Théorêmes de la Géométrie,... 61 pp. 4° *Paris*, An. VI. [1798]

C..., —: De la Mâture des Vaisseaux.
3 plates, 63 pp. 4° *Paris*, 1728

Cabeo, Niccolo: Philosophia Magnetica, in qua magnetis natura penitus explicatur, et omnium quæ hoc lapide cernuntur, causæ propriæ afferuntur: ... x.+412 pp. fol. *Coloniæ*, 1629

Cacciatore, Niccolò: De redigendis ad unicam seriem comparabilem meteorologicis ubique factis observationibus conventio proposita et tabulae supputatae. 81 pp. 4° *Panormi*, 1832

Cadet, le Citoyen: Tarifs des Centimes au Franc, ou Tables de Multiplications et comptes faits pour la répartition des contributions, ... 2 vols.
fol. *Paris*, 1797-1802

Cæsar, Johann: Des Cometen, So im Decembr: 1652. erschienen / lauf / höhe von der erden / grösse und muthmaszliche bedeutung / ...
16 ff. 4° *Hall in Sachsen*, 1653
Woodcut on title.

— Nachricht Vom Cometen / so zu ausgange des 1664. Jahres erschienen.
12 ff. 4° *Hall in Sachsen*, 1665
Woodcut on title.

Cæsius, Georg: Chronick / Oder ordenliche verzeichnusz vnnd beschreibung aller Cometen / ... bis 1579... 148 ff. 8° *Nürnberg*, 1579

— Practica Von den vier Zeiten / Finsternussen / Cometen / etc. vnd derselben bedeutungen / Auff das Jar ... 1582 ... beschriben / ...
16 ff. 4° *Nürnberg*, 1581
Woodcut on title.

Cagnoli, Antonio: Trigonométrie rectiligne et sphérique. Traduite de l'Italien par N. M. Chompré. Seconde Édition considérablement augmentée.
8 plates, 12 tables, xvi.+511 pp. 4° *Paris*, 1808

— * Notizie astronomiche adattate all'uso comune. Prima edizione.
Portrait, 2 maps, xx. + 436 pp. 16° *Milano*, 1818.

— * Memoir on a new and certain method of ascertaining the Figure of the Earth by means of Occultations of the fixed stars. With Notes and an Appendix by Francis Baily.
44 pp. 8° *London*, 1819

Calandrelli, Giuseppe; Conti, Andrea; e Ricchebach, Giacomo: Opuscoli Astronomici ... con Appendice. 2 vols.
4° *Roma*, 1818-22

Calandrelli, Ignazio: Memoria sulla gran Cometa apparsa nel mese di Marzo dell'anno 1843.
5 ff.+79 pp. 4° *Roma*, 1844

— * Sul Calcolo dell'orbita ellittica della Cometa scoperta in Roma il 22 Agosto del 1844.
19 pp. 8° *Roma*, 1845

— * Teoria della Cometa del luglio 1862. Nota III. 22 pp. 4° *Roma*, s.a.

Calandri, Philippi: Calandri arithmetica (Fol. II.): Philippi Calandri ad nobilem et studiosuȝ Julianum Laurentii Medicē de arimethrica (sic) opusculū.

104 ff. 8° [*In fine*]: *Impresso nella excelsa cipta di Firenze per Lorenzo de Morgiani et Giouanni Thedesco da Maganza finito a di primo di Gēnaio* 1491.

Chasles 1926. "Livre fort rare, que peu de bibliographes citent et que bien peu encore ont pu voir. M. de Morgan déclare ne pouvoir le citer que d'après l'exemplaire de la bibliothèque Grenville, léguée au Musée britannique."

Calculating Machines: Die Multiplikazion in ihrer vollkommensten Gestalt; oder Beschreibung einer neu erfundenen, einfachen und untrüglichen Rechnen-Maschine für die Multiplikazion mit vielziffrigen Zahlen,...

x.+122 pp. 8° *Dresden*, 1823

— Instruction sur la manière de se servir, de la Règle à Calcul,... Seconde Édition.

14 plates, 121 pp. 8° *Paris & Dijon*, 1825

— Description du Multiplicateur et du Composeur, ...servant à faciliter l'exécution de 4 opérations arithmétiques: ...

2 plates, 3 tables, 36 pp. 8° *St. Petersburg*, 1878

— *See* Scheutz, Georges et Édouard.

Calculus: A Syllabus of the Differential and Integral Calculus. 2 vols. 8° *Cambridge*, 1825-28

Calendars: [A fragment of a MS. almanac on thick vellum, 5 in. × 10½ in. Interesting for the old forms of the Arabic numerals.] Circa 1400

— Ein Kalender von 1478-1496.

1 plate, 3 pp. 4° s.l., s.a.

— [For the year 1480.] *Nurnberg Creussner.* MCCCC. LXXX. Aureus numer9 18. Lr̃a dn̄icalis B.A. ... Dies electi fleubothomie et ventoþ in quibs tn̄ mēbra corporis humani nominata tunc tangi non debent ...

Folio broadside, gothic type, printed by Creussner of Nürnberg. Very beautiful and interesting example of the office calendar of the olden time. Out of the binding of an old book.

— [For the year 1482.] Wurtzburg. Ditz Almanach helt New vnd Volmondt mit den auserwelten tagenn der aderlasz vnd artzney gebūg. Nach dē warē lauf: Vf die hochbrrumptē Stat Wurtzburg: gerechnet. Nach cristi gepurt jm lxxxij. jore der mindern zale. ...

A fragment, wanting June, July, part of December, and the "Lasstafel." Folio broadside, red and black ink, gothic type.

Calendars — *continued.* [Das ist Der Teutsch kalendari ...:] On p. 1. DEr meister almansor spricht ...

64 ff. + 1 f. MS. 4° [*In fine*]: *Gedrugt zu Augspurg von Iohannes Blaubirer Anno dn̄i. M.cccc. Lxxxiij.* [1483].

Hain No. 9735. Belonged to Dr. Lee. Autographs of Admiral Smyth and Professor De Morgan.

Many of the woodcuts and rhymes are the same as in the 1496 calendar, only the spelling is slightly different.

— [Fragments of German Calendars, 1484.]

— [For the year 1489.] (Sensenschmid. Bamberg?) Tabula minutionū. farmacorū necnō vētosatōnū Pauli Eckē de Sulczbach practicata ī stūdio Lypsesi / ANnus Domini 7c̄ Octogesimusnonus primus post bissextilē Embolismalis est ...

A fragment, half of the Calendar wanting. Folio broadside, gothic type, red and black ink. In good preservation.

— Hie volget nach der canon: das ist ain erclärūg v̈ber den Almanach [*Augsburg, Erhardt Ratdolt*, 1490]. Kalendarium magistri Joannis de monteregio viri peritissimi.

4° *Augustæ Vindelicorum, Erhardus Ratdolt*, 1492.

"On a relié à la fin le manuscrit suivant du xv^e siècle sur papier: Algorismus prosaycus de integris magistri Joannis de Sacro Busto de *Sancto Sepulchro*."

Chasles 3350.

— [For the year 1492.] (Nürnberg.) Ich bin ein weterhan Ein selgs Jor verkvnd Ich Jdermon. Das wil Ich Alen den geben die In gotesz forcht leben. Die zal nach xpi vnnsers herenn gepurt ist heuer. M.CCCC.xcij. vnd wirt genennt ein schalck Jaer ... Nach volgen warlich erwelt zeit der lasse vnd ertznew noch warē lauff des mons vnd d'glücklichen asspectn̄ der planeten zu im. ...

A folio broadside, gothic type, red and black ink. Top of the page is a woodcut of the whole width, and 5 centimeters high, in which the motto "Ich bin ... leben" is found on a scroll. In the centre of the leaf is another woodcut, 7 centimeters square, in which "Saturnus" is seen devouring one of his own children. A very fine specimen.

— [For the year 1492.] Als man zalt nach Christi geburt M.CCCC. xcij. Wirt die guldin zal xj. Der sonnē zickel xvij. Der sontagbuchstaben sein zwen. ...

Broadside 15½ in. × 10½ in. Six full lines at top; the rest in two columns.

Calendars—*continued.* Das ist Der Teutsch kalendari mit Den figuren. (Fol. II.): DEr meister Almansor spricht. ...

68 ff. 4° [*In fine*]: *Gedruckt zu Augspurg von Hansen Schawren. vnnd vollenndet an dem Donerstag oder Pfintztag nächst nach Sant Veyts des heyligen martrers tag. Als man zalt nach Cristi vnsers lieben herren geburt. M. cccc. vnd in dem. xcvj. jare.* [1496].

With numerous singular woodcuts, and curious German rhymes. Very rare, in fact it appears to be undescribed and unknown. Compare with 1483 Calendar.

— Der Jenner hat xxxi. tag ...

Fragment of a German Calendar between years 1490 and 1500. Folio broadside, gothic type, red and black ink.

— Calendario et Lunario perpetuo. Con Gratia & Priuilegio. 4° 10 ff. s.l., s.a.

In Italian.

— Calendarium putile siue Almanach tam cõputũ ecclesiasticum ♄ omniñ planetarñ veros mot9 ac passiões cõpẽdiose ãplectens.

14 ff. 4° s.l., 1512

— [For the year 1518.] Anno Salutis nostre Millesimoquingentesimodecimooctauo ... Almanach Simonis Eyssenmã de Dillinga artium magistri ...

Folio broadside. A fragment, months Jan., Feb., May, June, Sept. and Oct. Red and black ink.

— [For the year 1526.] Almanach Erhardi Etzlaub / burger zu Nürnberg / ...

Fragment. Folio broadside, gothic type, red and black ink. Woodcut arms on the border.

— Der Bawren Kalender 1540.

A calendar for those who could not read. The week days are marked by black triangles and the Sundays by "red orb." The various festivals are indicated by small cuts: *e.g. Our Lord on an ass* for Palm Sunday; *a Dove* for Whitsuntide, &c.

First half of the year only. Dom. letters are D C, Easter Sunday falls on March 28, and an eclipse of the Sun occurs on March 8. The year is therefore 1540.

— [For the year 1541.]

Fragments of a large French broadside almanac. In the top right corner "Les signes que tu trouveras au present almanach." La lune nouuelle, *est ainsy signee* ● A prendre pillules *dung tel signe* ● &c.

April, parts of September, October, November, and the whole of December, are all that remain. Dom. letter B. Easter, April 17; New Moon on Sept. 21, 1h 19m p.m.

— [For the year 1555.] Nürnberg. Almanach Erhardi Etzlaub / burger zu Nürnberg / d'freyen kunst vñ ertzney liebhaber.

Folio broadside, gothic type, red and black ink. The border is filled with coats of arms coloured of Castile, Arragon, Sicily, Granada, Hungary, Naples, Lützelburg, Habsburg, Kiburg and Brabant. Half missing.

Calendars—*cont.* M.DCIII. Jar. Diser Kalender ist einem yegklichen wol zuuerstehn / ob er schon nicht lesen kan: Merck nur auff der Zaichen bedeutung.

Fragment, January to June. With marks for various days and symbols for "Gut Baden," "Bösz Aspect," &c.

— Halberstadt—1743. Calendarium capituli ecclesiæ Cathredalis Halberstadiensis...1743.

48 in. × 26 in. sheet, s.l., s.a.

— Augsburg — 1746. Stadt Augspurg Raths-Calender / Oder Allmanach auf das Jahr...1746.

45¾ in. × 17½ in. sheet, *Augspurg*, s.a.

— Deutschlands Danck-und Denck-Säule bey dem Verflusse der ersten Helffte des XVIII. Jahrhunderts in einem emblematischen Wand-Calender auf das Jahr 1750.

25¼ in. × 19½ in. sheet, *Augspurg*, s.a.

— Constance—1751. Hoch-Fürstlicher Costantzischer Stüffts-Calender, Oder: Allmanach auf das Gemein-Jahr ... 1751.

56¼ in. × 25¾ in. sheet, s.l., s.a.

— Ellwangen—1751. Ellwangischer neuer Allmanach auf das Jahr ... 1751.

50¾ in. × 23¾ in. sheet, *Ellwang*, s.a.

— Cologne—1752. Cöllnischer Haupt-Calender / auf das Schalt-Jahr ... 1752.

58½ in. × 28¾ in. sheet, *Cöllen*, s.a.

— Augsburg — 1753. Stadt Augspurg Raths-Calender / Oder: Allmanach auf das Jahr...1753.

45¾ in. × 17½ in. sheet, *Augspurg*, s.a.

— Augsburg — 1758. Stadt Augspurg Raths-Calender / Oder: Allmanach auf das Jahr...1758.

46 in. × 17½ in. sheet, *Augspurg*, s.a.

— Valetta—1758. Allmanach auf das Jahr...1758. Des ... Malteser Ritter-Ordens ... Wappen-Calender. 68½ in. × 33½ in. sheet, s.l., s.a.

— Osnabrück — 1758. Calendarium Cathedralis Ecclesiæ Osnabrugensis. Stiffts-Calender, auf das Gemein-Jahr ... 1758.

50 in. × 25¾ in. sheet, s.l., s.a.

— Würzburg — 1760. Allmanach Würtzburger Bistumbs...auf das Schalt-Jahr ... 1760.

69½ in. × 28¾ in. sheet, s.l., s.a.

— Constance—1761. Hoch-Fürstlicher Costantzischer Stüffts-Calender. Oder: Allmanach aufs Gemein-Jahr ... 1761.

56¼ in. × 25¾ in. sheet, s.l., s.a.

Calendars — *continued.* Ellwangen — 1761. Ellwangischer neuer Allmanach auf das Jahr ... 1761. 51¼ in. × 23¾ in. sheet, *Ellwang*, s.a.

— Augsburg — 1763. Stadt Augspurg Raths-Calender / Oder: Allmanach auf das Jahr ... 1763. 45¾ in. × 17½ in. sheet, *Augspurg*, s.a.

— Allmanach auf das Jahr ... 1772. 73½ in. × 36 in. sheet, s.l., s.a.

— Bamberg—1777. Allmanach Bamberger Bistums, auf das Gemein-Jahr 1777. 63 in. × 30½ in. sheet, s.l., s.a.

— Trier—1777. Allmanach Eines Hochwürdigen Domkapituls zu Trier ... 1777. 82 in. × 36¼ in. sheet, s.l., s.a.

— Allmanach auf das Jahr ... 1777. 76 in. × 35 in. sheet, s.l., s.a.

— Halberstadt—1786. Halberstaedtischer Domstifts-Calender ... 1786. 47¾ in. × 25½ in. sheet, s.l., s.a.

— Halberstadt—1795. Halberstaedtischer Domstifts-Calender ... 1795. 47 in. × 25½ in. sheet, s.l., s.a.

— Halberstadt—1804. Halberstaedtischer Domstifts-Calender ... 1804. 47¾ in. × 25¼ in. sheet, s.l., s.a.

— English and Indian Calendar for 1858, for Bombay Mean Time. 58 pp. 8° s.l., s.a.

— Arequipa—1883. Calendario de Arequipa 1883. Calculado por Nipolito Sanches. 18¼ in. × 22⅞ in. sheet, *Arequipa*, 1882

Caligny, Anatole de: * Nouveau système de Fontaines Intermittentes sous-marines. Théorie et modèle fonctionnant. Suivi d'une note de M. Combes. 23 pp. 4° *Paris*, 1843

Calkoen, Jan Frederik van Beeck: Nouvelle théorie de construction pour les Mappemondes. 1 table, 2 plates, 16 pp. 8° *Amsterdam*, 1810

Callet, François: Tables portatives de logarithmes, contenant les logarithmes des nombres depuis 1 jusqu'à 108,000, [et] les logarithmes des sinus et tangentes, de seconde en seconde pour les cinq premiers degrés, de dix en dix secondes pour tous les degrés du quart de cercle; et suivant la nouvelle division centésimale, de dix-millième en dix-millième. Édition stéréotype. 8° *Paris*, 1795 [Tirage 1814]

Callet, François—*cont.* Table of the Logarithms of Sines and Tangents, for every second, of the first five degrees, and of the Sines, Cosines, Tangents and Cotangents, for every ten seconds of the Quadrant. 8° *Paris*, 1795 [Tirage 1827]

Stereotyped, and Printed on Yellow Paper for Babbage.

Calver, G.: Hints on Silvered-Glass Reflecting Telescopes manufactured by Mr. G. Calver. New Edition. 40 pp. 8° *Chelmsford*, 1877

Calvisius, Sethus [Kalwitz]: Opus Chronologicum, ad annum MDCLXXXV. continuatum, *Cui præmissa est* Isagoge Chronologica, *& subjuncta appendix* Epistolarum et Judiciorum de hoc Opere, nec non controversiarum Chronologicarum, *nunc primum* ex MSC. CL. Autoris collectarum.

2 portraits, 6 ff. + 1050 pp. + 42 ff. + 74 pp. fol. *Francofurti ad Moenum et Lipsiæ*, 1685.

Cambell, Duncan [Campbell]: Time's Telescope Universal and Perpetual, Fitted for all Countries and Capacities. Containing Perpetual Tables, fitted to the Old and New Stile; shewing the Days of the Month, ... Also the Magnitudes and Distances of the Planets; and a Brief Discourse of all kinds of Meteors, ... To the Whole is Added, a Short Description of Time, and how it ought to be Redeem'd.

4 ff. + 155 pp. 8° *London*, 1734

[At end of Dedication, Duncan Campbell.]

Pp. 130-132, the colour of the rainbow is said to prognosticate the weather, thus :—

Fair Weather—The rainbow after rain appearing meanly red.
Rain—Appearing very green the more rain.
Wind—Appearing red.

Cambridge and Dublin Mathematical Journal: *See* Cambridge Mathematical Journal.

Cambridge Mathematical Journal: Edited by R. L. Ellis. Vol. I.-IV. 8° *Cambridge*, 1839-45

— The Cambridge and Dublin Mathematical Journal: Edited by W. Thomson, &c. Vol. I.-IX. 8° *Cambridge*, 1846-54

— The Quarterly Journal of Pure and Applied Mathematics: Edited by J. J. Sylvester, &c. Vol. I.-XV. 8° *London*, 1857-78

Cambridge Problems: Being a collection of the printed questions proposed to the candidates for the degree of Bachelor of Arts from 1801 to 1810 inclusive.

xviii. + 179 pp. 8° *Cambridge*, 1810

Cambridge Problems—*continued.* From 1811-1829 inclusive. 8° *London*, 1814-30

— Being a collection of the printed questions proposed to the candidates for the degree of Bachelor of Arts, ... from 1801 to 1820 inclusively. 122 pp. 8° *London*, 1836

Camerarius, Joachim [Liebhard]: Astrologica... I. Circulus Solaris. II. De iudicijs siue significationibus duodecim locorum orbis signiferi. III. Decreta planetarũ in singulis locis Zodiaci. Atq; hæc latina quoq; facta sunt. Iisq; adiectus est libellus de natura planetarum. IIII. Medicationes accommodatæ ad astrologicam rationem.

Greek, 6 ff.+46 pp., Latin, 55 pp. 4° *Norimbergae apvd Io. Petreivm, Anno M.D.XXXII.*

Chasles 3137.

— De eorum qui Cometæ appellantur, nominibus, natura, caussis, significatione: ...

92 pp. 8° *Lipsiæ*, 1558

— De eorum qui Cometæ appellantur, nominibus, natura, caussis, significatione, ...

110 pp. 8° *Lipsiæ*, 1582

Camerer, Johann Wilhelm: Propositiones nonnullae ad theoriam æstimationis errorum in Triangulis planis et sphaericis pertinentes.

1 plate, 24 pp. 4° *Tubingae*, 1783

Campano, Giovanni: *See* Archimedes.

Campbell, E. S. N.: A Dictionary of the Military Science; containing an explanation of the principal terms used in Mathematics, Artillery, and Fortification; ... 284 pp. 8° *London*, 1844

Campori, Giuseppe: *See* Galilei, Galileo.

Camus, Charles Étienne Louis: A treatise on the teeth of wheels, pinions, &c. demonstrating the best forms which can be given them for the various Purposes of Machinery; ... Translated from the French ...: with Additions.

15 plates, xviii.+144 pp. 8° *London*, 1806

Camus, François Joseph des: Traité des Forces Mouvantes.

8 plates, viii. ff.+535 pp. 8° *Paris*, 1722

— Traité des Forces Mouvantes, pour la pratique des Arts et Métiers. Avec une Explication de vingt Machines nouvelles & utiles.

8 plates, viii. ff.+535 pp. 8° *Paris*, 1722

Camus de Mézières, Nicolas, le: Traité de la Force des Bois. 2 plates, 372 pp. 8° *Paris*, 1782

Canard, N. F.: Traité Élémentaire du Calcul des Inéquations.

5 plates, viii. + 476 pp. 8° *Paris*, 1808

Candorin, —: Candorins abgefasseter Cometen Entwurf. 14 ff. 4° *Lübek*, 1665

— Des gemälich hinten Nachkommenden Bedünken über das Himlische Ungewöhnliche Ferne Licht im Finsteren / ...

Engraved diagram, 8 ff. 4° *Lübeck*, 1665

Canovai, Stanislao: *See* Gardiner, William.

Canterzani, Sebastiano: Osservazioni sul Valor Cardanico esposte in una lettera ...

59 pp. 4° *Bologna*, 1787

Cantoni, Giovanni: *See* Rossetti, Francesco.

Cantor, Georg: De Æquationibus secundi gradus indeterminatis.

26 pp. + "vita," 4° *Berolini*, 1867

— De Transformatione formarum ternariarum quadraticarum. 12 pp. 4° *Halis Saxonum*, 1869

— Historische Notizen über die Wahrscheinlichkeitsrechnung. 8 pp. 4° *Halle*, 1874

Cantor, Moritz: Mathematische Beiträge zum Kulturleben der Völker.

4 plates, xii.+432 pp. 8° *Halle*, 1863

— * Euclid und sein Jahrhundert.

72 pp. 8° *Leipzig*, 1867

— Die Römischen Agrimensoren und ihre Stellung in der Geschichte der Feldmesskunst.

5 plates, 237 pp. 8° *Leipzig*, 1875

— Vorlesungen über Geschichte der Mathematik. Bd. I. Von den ältesten Zeiten bis zum Jahre 1200 n. Chr. 1 plate, 804 pp. 8° *Leipzig*, 1880

Capelli, Giovanni: Relazione dei principali fenomeni osservati nel totale Eclisse Solare dell' 8 luglio, 1842.

2 plates, 32 pp. 8° *Milano*, 1842

Capocci, Ernesto: Lezioni di Astronomia professate ... da F. Arago tradotte dal francese ed annotate da E. C. ...

7 plates, viii.+464 pp. 12° *Napoli*, 1851

— *See* Melloni, Macedonio.

Capron, J. Rand: Photographed Spectra. One hundred and thirty-six Photographs of Metallic, Gaseous, and other Spectra, printed by the permanent autotype process.

37 plates, 84 pp. 8° *London*, 1877

Capron, J. Rand — *continued.* Auroræ : their Characters and Spectra.
18 plates, xiv. + 207 pp. 4° *London & New York*, 1879.

— * A plea for the Rainband.
2 plates, 12 pp. 8° *London*, 1881

— * The Auroral Beam of November 17, 1882.
1 plate, 22 pp. 8° *London*, 1883

— * The Biela Meteors. 2 pp. 8° *London*, 1885

— Meteorological observations made at Guildown, Guildford, 1884. obl. 4° s.l., 1885

— A plea for the Rainband, and the Rainband vindicated. 5 plates, 30 pp. 8° *London* [1886]

Capuano di Manfredonia: *See* Purbach, Georg. Riccardi, Pietro.

Cardanus, Hieronymus: Practica Arithmetice, & Mensurandi singularis. In qua que preter alias cõtinentur, versa pagina demonstrabit.
308 ff. 8° [*In fine*]: *Anno a Virgineo partu. M.D.XXXIX. Io. Antonins Castellioneus Mediolani Imprimebat.*

— Libelli dvo : Vnus, de Supplemento Almanach. Alter, de Restitutione temporum & motuum cœlestium. Item Genituræ LXVII. insignes casibus & fortuna, cum expositione.
109 ff. 4° *Norimbergæ, apud Jo. Petreium, Anno* 1543.

— Libelli Quinq$_{q}$. I. De supplemẽto Almanach. II. De Restitutione temporũ & motuum cœlestium. III. De Iudicijs geniturarũ. IIII. De Reuolutionibus. V. De exemplis centum geniturarum....Eiusdem, antea non edita, Aphorismorum Astronomicorum Segmenta VII. Opusculum incomparabile.
4+310 ff. 4° *Norimbergæ, apud Johan. Petreium*, 1547.

— In Cl. Ptolemæi Pelvsiensis IIII de Astrorum Iudicijs, aut, ut uulgò uocant, Quadripartitæ Constructionis libros commentaria,...Nunc primùm, in lucem ædita. Præterea, Geniturarum XII, et avditv mirabilia et nocatu digna,...
10 ff.+513 pp. fol. [*In fine*]: *Excvdebat Basileæ Henrichvs Petri*, 1554.

— Opus novum de proportionibus numerorum, motuum, ponderum, sonorum, aliarumqu'e rerum mensurandarum,...in V libros digestum. Præterea. Artis magnæ, sive de regulis algebraicis, ... Item. De Aliza regula liber,...
8 ff. + 271 + 163 pp. + 4 ff. + 111 pp. fol. [*In fine*]: *Basileæ, ex officina Henric Petrina*, 1570.

[Cardilucius]: Historische Exempel / Was auf die meisten Cometen von Christi Geburt hero erfolget... 140 pp. 12° *Nürnberg*, 1681

Cardinali, François: Théorie complette des transcendantes elliptiques. 71 pp. 4° *Livourne*, 1809

Carelli, Giovanni Battista: Ephemerides ... ad Annos XVIII. Incipientes ab Anno Christi M.D.LXIII. vsqve ad Annvm [M.D.LXXVIII.] Meridiano inclitæ vrbis venetiarvm diligentissime svppvtatæ.
4 ff. 4° *Venetiis, Apud Vincentium Valgrisium*, 1563.

Carl, Philipp: Repertorium der Cometen-Astronomie. 377 pp. 8° *München*, 1864

Carlini, Francesco: Dell'Orbita ellittica della Cometa ultimamente osservata. ...
1 plate, 31 pp. 4° *Milano*, 1844

— Sopra l'Ecclisse Solare...8 luglio, 1842.
2 maps, 23 pp. 8° *Milano*, s.a.

Carlini, Francesco, et Plana, Giovanni: Observations sur l'écrit de M. Laplace, ... au Bureau des Longitudes, intitulé ; 'Sur le perfectionnement de la Théorie et des Tables lunaires.'
39 pp. 8° *Gênes*, 1820

— Note sur l'Équation Lunaire, ayant pour argument le double de la différence entre les longitudes du noeud et du périgée.
19 pp. 8° *Gênes*, 1820

Carlisle, Anthony: * Continuation of an account of a peculiar arrangement in the Arteries distributed on the muscles of slow-moving Animals. 1 plate, 8 pp. 4° *London*, 1804

Carlyle, Thomas: *See* Brewster, David.

Carmichael, Robert: A Treatise on the Calculus of Operations: designed to facilitate the processes of the Differential and Integral Calculus and the Calculus of Finite Differences.
xii.+170 pp. 8° *London*, 1855

— * Illustrations of Symmetrical Integration.
5 pp. 8° *London*, 1860

— * On certain methods in the Calculus of Finite Differences. 30 pp. 8° *Dublin*, 1860

— * On the general theory of the Integration of nonlinear partial Differential Equations.
14 pp. 8° *Dublin*, 1861

Carnot, Lazare Nicolas Marguerite: Œuvres Mathématiques.
Portrait, 1 plate, xvi.+208 pp. 8° *Basle*, 1797

— Géométrie de Position.
15 plates, xxxviii.+489 pp. 4° *Paris*, An XI. — 1803.

— Principes fondamentaux de l'Équilibre et du Mouvement.
2 plates, xxii.+262 pp. 8° *Paris*, An XI (1803)

— Mémoire sur la Relation qui existe entre les distances respectives de cinq points quelconques pris dans l'espace; suivi d'un Essai sur la Théorie des Transversales.
3 plates, 111 pp. 4° *Paris*, 1806

— Réflexions sur la métaphysique du Calcul Infinitésimal. Seconde Édition.
1 plate, vi.+252 pp. 8° *Paris*, 1813

— Reflexions on the Metaphysical Principles of the Infinitesimal Analysis. Translated by the Rev. W. R. Browell.
1 plate, vi.+132 pp. 8° *Oxford*, 1832

Carpenter, James: *See* Nasmyth, James.

Carrington, Richard Christopher: Nine draft maps (printed by the anastatic process), containing all the stars above the eleventh magnitude situated within nine degrees of the north pole, ... for ... 1855. 1 f. text, fol. [*London*], 1853
50 copies only printed.

— A catalogue of 3735 circumpolar stars observed at Redhill in the years 1854, 1855, and 1856, and reduced to mean positions for 1855·0.
lxii.+151 pp. fol. *London*, 1857
2 copies, one being the last revise.

— Information and suggestions addressed to persons who may be able to place themselves within the shadow of the total Eclipse of the Sun, on September 7, 1858 [with appendix, giving a translation of M. Kutczycki's account of the Eclipse of 1850].
8 plates, 32 pp. 8° *London*, 1858
(Apparently a revised proof.)

— Observations of the Spots on the Sun from November 9, 1853, to March 24, 1861, made at Redhill.
166 plates, 248 pp. 4° *London and Edinburgh*, 1863.

— Circumpolar Charts for 1855.0.
10 sheets, fol. *London*, s.a.

Carrington, Richard Christopher — *continued.*
The Engraved Copper Plates of R. C. C...'s Draft circumpolar Maps, containing all the stars above the eleventh Magnitude.
10 copper plates.

— Quelquechose. An example of applying Professor Challiss's method of obtaining the errors of position of the Polar axis of an Equatorial, by observing the Polar distance with telescope fixed in declination,... 7 pp. 8° s.l., s.a.

— *See* Lycosthenes, Conrad.
Manuscripts.

Carruthers, G. T.: New Solar Elements.
24 pp. 8° *Nagpur*, 1879

— Note on the consideration that the Planets meet with resistance from the Ether.
5 pp. 8° *Chakrata*, 1879

— The Attraction of simple Gravity.
11 pp. 8° *Roorkee*, 1880

— An attempt to prove Newton's law of attraction for a resisting medium. 9 pp. 8° *Roorkee*, 1881

— The inverse distances of the planets.
3 pp. 8° *Roorkee*, 1881

Casa, Vittorio de la: Opuscolo analitico di Geodesia Sublime.
1 plate, viii.+40 pp. 8° *Vienna*, 1824

Casati, Paolo: Mechanicorum libri octo, in quibus uno eodemque principio Vectis vires Physicè explicantur & Geometricè demonstrantur,...
8 ff.+799 pp. 4° *Lugduni*, 1684

— Opticæ dissertationes, in quibus Plura Physicè explicantur de Visibilibus, de Visione, de Apparentiis Visus.
4 ff.+92 pp.+2 ff. 4° *Parmæ*, 1705

— Dissertatio physica de Cometis.
71+4 pp. 12° *Graecii*, 1749

Casella, Louis: List, with notes, of Standard Meteorological and other Instruments for Observatories, Travellers and Explorers, &c.
72+iv. pp. 8° *London*, 1883

Casmann, Otho: Astrologia, Chronographia et Astromanteia. Pars I. et II.
24+584+247 pp. 8° *Francofurti*, 1598

Caspari, E.: * Notions sommaires sur la Déviation des Boussoles par le fer des navires.
11 pp. 8° *Paris*, 1873

Cassell, Johann Philip: De succulis Sidereis.
8 pp. 4° *Bremae*, 1767

Cassani, Joseph: Tratado de la naturaleza, origen, y causas de los Cometas. Con la historia de todos los que se tiene noticia haverse visto,...
1 plate, 8 ff.+256 pp. 8° *Madrid*, 1737

Cassini, Giovanni Domenico: Œuvres diverses de M. J. D. Cassini, de l'Académie royale des sciences. [Mémoires de l'Académie de Paris, T. viii.] 505 pp. 4° *Paris*, 1730

— *See* Chappe d'Auteroche, J.

Cassini, Giovanni Domenico, et Cassini, Jacques: Observations astronomiques faites en France et en Italie, en 1694. 1695. & 1696.
62 pp. 4° *Amsterdam*, 1735

Cassini, Jacques: De la grandeur et de la figure de la Terre. [Suite des Mémoires de Paris, 1718.]
5 maps, 15 plates, 306 pp. 4° *Paris*, 1720

— Observations astronomiques faites en Flandre, en Hollande, et en Angleterre, en 1697. & 1698.
35 pp. 4° *Amsterdam*, 1735

— Tables de l'Etoile Polaire, pour trouver à chaque jour de l'année son passage par le meridien ; ...
1 plate, 31 pp. 4° *Amsterdam*, 1735

— Éléments d'Astronomie.
21 plates, 28+643 pp. 4° *Paris*, 1740

— Planisphere terrestre, suivant les nouvelles Observations des Astronomes. fol. *Leide*, s.a.

— *See* Cassini, Giovanni Domenico.

Cassini de Thury, César François: La méridienne de l'Observatoire Royal de Paris, Vérifiée dans toute l'étendue du Royaume par de nouvelles Observations ;...avec des observations d'Histoire Naturelle, faites dans les Provinces traversées par la Méridienne, par Le Monnier.
14 plates, 4 ff. + 292 + ccxxxv. + 17 pp. 4° *Paris*, 1744.

— Relation de deux voyages faits en Allemagne par ordre du Roi. Par rapport à la Figure de la Terre, Pour déterminer la grandeur des degrés de longitude.... xxxii.+186 pp. 4° *Paris*, 1763

— *See* Maskelyne, Nevil.

Castillon, Giovan Francesco Mauro Melchior, [Castilhon, Castillioneus]: *See* Newton, Isaac.

Castracani, Francesco: * Catalogo di Diatomée raccolte nella Val Intrasca.
16 pp. 8° *Genova*, 1866

Catalan, Eugène Charles: * Note sur une formule relative aux intégrales multiples.
2 pp. 4° *Paris*, 1843

Cataldi, Pietro Antonio: Prima Lettione...fatta pvblicamente nello Stvdio di Pervgia il dì XII. di Maggio del MDLXXII.
4 ff. 4° *In Perugia: Per Valente Panizza Stampator publico*, 1572.

— Dve Lettioni...fatte nell'Academia del Dissegno di Perugia, ...
8 ff. 4° *Bologna. Per Giouanni Rossi*, 1577

— Prima parte della pratica aritmetica, overo elementi pratici delli nvmeri aritmetici, Doue si mostrano le operationi semplici d'essi numeri Aritmetici, che sono Sommare, Sottrare, Moltiplicare, & Partire ; ...
6 ff.+ 148 pp. fol. *Bologna, Presso gli Heredi di Giouanni Rossi.* 1602.
Words underlined are in red ink.

— Prima, Seconda, Terza, e Quarta Parte della Pratica Aritmetica, overo elementi Pratici delli nvmeri Aritmetici, (Geometrici)... 4 vols. in 2.
fol. Vols. I., II., *Bologna Presso gli Heredi di Giouanni Rossi*, 1602-1606.
III. *Bologna Appresso Sebastiano Bonomi*, 1617
IV. *Bologna Presso Bartolomeo Cochi*, 1616.
Words underlined are in red ink.

— Trattato de'Nvmeri perfetti.
4 + 48 pp. 4° *Bologna, Presso gli Heredi di Giouanni Rossi*, 1603.
Words underlined are in red ink.

— Operetta delle linee rette eqvidistanti, et non eqvidistanti.
4 + 35 pp. 4° *Bologna, Presso gli Heredi di Giouanni Rossi*, 1603.
Words underlined are in red ink.

— Opvscvlvm de lineis rectis æqvidistantibvs, et non æqvidistantibvs.
4 + 35 pp. 4° *Bononiæ, Apud Hæredes Ioannis Rossij*, 1603.
Words underlined are in red ink.

Cataldi, Pietro Antonio—*continued.* Aggivnta all'operetta delle linee rette eqvidistanti, et non eqvidistanti.

4 + 8 + 32 pp. 4° *Bologna, presso gli Heredi di Gio. Rossi* 1604.

Words underlined are in red ink.

— Trattato dell'Algebra proportionale. Doue si mostrano le inuentioni dei primi Capitoli, ò Equationi d'essa.

4 + 76 pp. fol. *Bologna, Appresso gli Heredi di Giouanni Rossi,* 1610.

Words underlined are in red ink.

— Trasmvtatione Geometrica dove si mostra come dato vn rettilineo egli stesso si ridvca alla forma di qval si vogli rettilineo proposto.

4 + 24 pp. fol. *Bologna, Appresso gli Heredi di Giouanni Rossi,* 1611.

Engraved title page.

— Trattato della qvadratvra del cerchio, dove si esamina vn nvovo modo di Quadrarlo per numeri. Et insieme si come, Dato vn Rettilineo, si formi vn curuilineo egùale ad esso Dato. ...

2 ff. + 55 + 5 pp. fol. *Bologna, Per Bartolomeo Cochi,* 1612.

Words underlined are in red ink.

— Trattato del modo brevissimo Di trouare la Radice quadra delli numeri, Et Regole da approssimarsi di continuo al vero nelle Radici de'numeri non quadrati, ...

2 ff. + 140 pp. fol. *Bologna, Appresso Bartolomeo Cochi.* 1613.

Words underlined are in red ink.

See "Libri,—Histoire des sciences mathématiques en Italie," Tome IV., p. 92, &c.

— Dve Lettioni ... Doue si mostra come si troui la grandezza delle superficie rettilinee. Aggiuntoui il modo di trouare la grandezza corporea, & la superficie delle Sfere, & parti sue, & in particolare delle cinque Zone Terrestri, & altri Corpi.

32 pp. 4° *Bologna, Appresso Bartolomeo Cochi,* 1613.

— Regola della quantità, o cosa di cosa.

2 ff. + 32 pp. fol. *Bologna, Per Sebastiano Bonomi,* 1618.

Words underlined are in red ink.

Cataldi, Pietro Antonio — *continued.* Nvova Algebra proportionale, Doue si mostra la inuentione della Radice cuba di molti binomij, quali gl'Illustri Scrittori teneuano non potere essere cubi, ...

2 ff. + 51 pp. + 4 ff. fol. *Bologna, Appresso Sebastiano Bonomi,* 1619.

Words underlined are in red ink.

— Elementi Delle Quantità Algebratiche, Doue si mostrano l'operationi loro, & come peruenuti alle Equationi elle si riduchino alli Capitoli occorrenti.

2 ff. + 28 pp. fol. *Bologna, Appresso Sebastiano Bonomi,* 1620.

Words underlined are in red ink.

— Diffesa d'Archimede, trattato del misvrare, ò trouare la grandezza del Cerchio; Doue si diffende Archimede Siracusano dalle oppositioni del Signor Ioseffo Scaligero: ...

2 ff. + 74 + 32 pp. + 2 ff. fol. *Bologna, Per Sebastiano Bonomi,* 1620.

Words underlined are in red ink.

— Trattato geometrico. Doue si essamina il modo di formare il Pentagono sopra ad vna linea retta, descritto da Alberto Durero. ...

2 ff. + 60 pp. fol. *Bologna, Per Sebastiano Bonomi,* 1620.

Words underlined are in red ink.

— Algebra applicata, Doue si mostra la vtilissima applicatione d'essa alla inuentione delle cose recondite nelle diuerse Scienze, & Arti.

2 ff. + 88 pp. fol. *Bologna, Per Nicolò Tebaldini,* 1622.

Words underlined are in red ink.

— *See* Euclides Megarensis.

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— * Mémoire sur le Nombre des Valeurs qu'une Fonction peut acquérir, lorsqu'on y permute de toutes les manières possibles les Quantités qu'elle renferme. 28 pp. 4° *Paris*, 1812

— * Démonstration d'un Théorême curieux sur les Nombres. 2 pp. 4° *Paris*, 1816

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Lithographed.

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$$\int_0^b \int_b^c \frac{(\nu^2-\varsigma^2)\ d\nu\ .\ d\varsigma}{\sqrt{(\nu^2-b^2)\,(c^2-\nu^2)\,(b^2-\varsigma^2)\,(c^2-\varsigma^2)}} = \tfrac{1}{2}\ \pi$$

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On the title is a cut (repeated on p. 151) of the constellation of Cassiopeia with the New Star of 1572, but the book also contains a general history of comets from B.C. 642 to A.D. 1556, with their presumed effects. There are also descriptions and eleven figures of the principal constellations, with an enumeration of the stars (1022 in all) according to "Alphraganus." On p. 102 is a caricature of Luther with an imp on his shoulders. Lycosthenes' well-known chart of the path of the comet of 1556 is reproduced and extended to a full circle on p. 46. A former owner states on the fly-leaf that all the woodcuts except that of Luther are by Anton von Worms.

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Heinsii,	Stegmanni,	Schotti,
Gruteri,	Olearii,	Bartholini,
Vossii,	Hevelii,	Langii,
Oldenburgii,	Brusselii,	Placentini,

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[Verzeichnüs Derer Cometen so vor und nach Christi Geburth von den Astronomis und andern berühmten Leuten beobachtet worden / nebenst allerhand Begebenheiten / so darauff erfolget.]

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DIVISION II.—PERIODIC COMETS OF AT LEAST TWO APPEARANCES, ARRANGED IN ORDER OF THEIR TIMES OF REVOLUTION.

1. Comet Encke.
2. " Tempel II.
3. " Tempel-Swift.
4. " Brorsen.
5. " Winnecke.
6. " Tempel I.
7. " Biela.
8. Comet D'Arrest.
9. " Faye-Möller.
10. " Tuttle.
11. " Pons-Brooks.
12. " Olbers.
13. " Halley.

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— * Fortgesetzte Untersuchungen über den Encke'schen Cometen. 31 pp. 8° *St. Pétersbourg*, 1877

— * Untersuchungen über die Theorie des Encke'schen Cometen. II. Resultate aus den Erscheinungen 1819-1875. 125 pp. 4° *St. Pétersbourg*, 1878

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Schulhof, L., et Bossert, J.:
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Colla, A.: *See* Comets, Div. III. Comet 1846, I.

Denza, Francesco: *See* Schiaparelli, G. V.

Jahn, Gustav Adolph: Ueber den neuen Planeten Asträa und den Biela'schen Kometen.
2 charts, 30 pp. 8° *Leipzig*, 1846

Klinkerfues, Ernst Friedrich Wilhelm: * Ueber einen grossen Sternschnuppenfall aus dem Jahre 524 n. Chr. und seinen muthmasslichen Zusammenhang mit dem Cometen von Biela und dem des Jahres 1162.
1 plate, 22 pp. 8° *Göttingen*, 1873

Legendre, A. M.: *See* Comets, Div. I.

Littrow, Joseph Johann von: Über den gefürchteten Kometen des gegenwärtigen Jahres 1832 und über Kometen überhaupt.
1 plate, 175 pp. 8° *Wien*, 1832

Moore, F.: *See* Comets, Div. I.

Newton, Hubert Anson: * The Biela Meteors of November 27th, 1885.
18 pp. 8° *New Haven*, 1886

Santini, Giovanni: * Ritorno della Cometa periodica di Biela ... nell'anno MDCCCXXXII e correzione degli elementi ellittici della sua orbita ...
12 pp. 4° *Padova*, 1833

— * Delle variazioni prodotte negli elementi ellittici della Cometa periodica di ... Biela, dall' azione di Giove, di Saturno e della Terra ... fra il MDCCCXXVI ed il MDCCCXXXII.
8 pp. 4° *Venezia*, 1834

— * Calcolo delle variazioni prodotte negli elementi ellittici della Cometa detta di Biela dall' azione di Giove, di Saturno e della Terra ... fra il 1832 ed il 1839. 10 pp. 4° *Padova*, 1835

— * Ricerche intorno alle perturbazioni ... della Cometa periodica detta di Biela ... fra il 1826 ed il 1832, e che si produrranno fino al suo ritorno nel 1839, seguite da una Effemeride per ricercarla in quell'epoca.
29 pp. 4° *Padova*, 1836

— * Calcolo delle perturbazioni prodotte dall'azione di Giove e di Saturno negli elementi ellittici della Cometa di Biela dal suo passaggio pel perielio nel 1839 fino al prossimo suo ritorno nel 1846. 26 pp. 4° *Venezia*, 1842

— * Calcolo delle perturbazioni prodotte dalle attrazioni di Giove, Saturno, della Terra e di Venere negli elementi ellittici della Cometa di breve periodo appellata di Biela dal suo passaggio al perielio nel 1846 fino al prossimo suo ritorno nel 1852. 41 pp. 4° *Venezia*, 1851

Santini, Giovanni—*cont.* * Annotazioni intorno alla Cometa periodica di Biela ed alla III Cometa del 1854. 33 pp. 8° *Venezia*, 1855

— * Intorno alla Cometa periodica di Biela di cui attendesi il ritorno al perielio nel prossimo mese di maggio 1859. 15 pp. 8° *Venezia*, 1859

Schiaparelli, Giovanni V., e Denza, Francesco: * Sulla grande pioggia di Stelle Cadenti prodotta dalla Cometa periodica di Biela e osservata la sera del 27 novembre 1872.
1 plate, 75 pp. 8° *Milano*, 1872

Stratford, William Samuel: * Ephemeris of Gambart's Comet, (Discovered by Biela) about the time of its perihelion passage in the years 1845-6. 8 pp. 8° *London*, 1845

Struve, Otto von: * Beobachtungen des Bielaschen Cometen im Jahre 1852 angestellt am grossen Refractor der Pulkowaer Sternwarte.
2 plates, 26 pp. 4° *St. Petersburg*, 1854

8. Comet d'Arrest.

Leveau, Gustave: * Sur la Comète périodique de d'Arrest, et son prochain retour en 1883.
7 pp. 4° *Paris*, 1883

Oudemans, Johann Abraham Christian: * Mémoire sur l'orbite de la Comète périodique découverte par M. d'Arrest le 27 juin 1851.
32 pp. 4° *Amsterdam*, 1855

— * Opzoekings-Ephemeride voor de Komeet van d'Arrest, bij hare aanstaande verschijning in 1857. 23 pp. 8° *Amsterdam*, 1855

9. Comet Faye-Möller.

Hall, Asaph: * Observations of Comets.
3 pp. 4° *Kiel*, 1881

Möller, Axel: * Undersökning af Fayeska Kometens bana. 90 pp. 4° *Stockholm*, 1862

— * Elementer för Fayes Komet och Efemerid för dess återkomst 1873. 21 pp. 8° *Stockholm*, 1872

— * Bericht über die Resultate einer neuen Berechnung der Elemente des Faye'schen Cometen.
13 pp. 8° *Leipzig*, 1872

— * Elementer och Efemerid för Fayeska Kometens återkomst 1880.
8 pp. 8° *Stockholm*, 1878

Plantamour, E.: *See* Comets, Div. I.

Shdanow, Alexandre: * Recherches sur l'orbite intermédiaire de la Comète de Faye dans la proximité de Jupiter en 1841.
24 pp. 4° *St. Pétersbourg*, 1885

Tempel, W.: *See* Comets, Div. III. Comet 1871, IV.

10. Comet Tuttle.

Rahts, Johannes: * Berechnung der Elemente des Tuttle'schen Cometen für seine Erscheinung im Jahre 1885. [Inaugural Dissertation.]
20 pp. + "vita," 4° *Kiel*, 1886

Tempel, W.: *See* Comets, Div. III. Comet 1871, IV.

Tischler, Friedrich Carl Adalbert: Ueber die Bahn von Tuttle's Comet (1858 I = 1790 II). [Inaugural Dissertation.]
32 pp. + "vita," 4° *Königsberg*, 1868

11. Comet Pons-Brooks.

Bossert, J.: *See* Schulhof, L.

Bredichin, Th.: * Les syndynames et les synchrones de la comète Pons-Brooks (1883-1884).
1 plate, 24 pp. 4° *Moscou*, 1884

— * Note supplémentaire sur la comète Pons-Brooks. 6 pp. 4° *Moscou*, 1884

Porter, J. G., and Wilson, H. C.: *See* Comets, Div. III. Comet 1883, I.

Schulhof, L., et Bossert, J.: * Ephéméride pour la recherche de la Comète 1812 (Pons).
2 sheets, fol. *Paris* [1882]

— * Sur l'orbite de la Comète de 1812 (Pons) et sur son prochain retour. 161 pp. 4° *Paris*, 1883

Terby, François: * Note sur la Comète de 1812 (Pons-Brooks), observée à Louvain en 1883-1884. 1 plate, 8 pp. 8° *Bruxelles*, 1884

12. Comet Olbers.

Bessel, Friedrich Wilhelm: Auszug aus Bessels Untersuchungen über den Olbersschen Cometen.
MS. of 9 ff. by H. F. Scherk.

Ginzel, F. K.: * Neue Untersuchungen ueber die Bahn des Olbers'schen Cometen und seine Wiederkehr.
1 chart, 149 + ii. pp. 4° *Haarlem*, 1881

Scherk, H. F.: *See* Bessel, F. W.

13. COMET HALLEY.

Anonymous: Eigentlicher Abrisz desz Entsetzlichē Cometstern, welcher widerum an dem Himel Leuchtet, und dē $\frac{19}{29}$ Augusti dises 1682. J: in solcher gestalt in Augspurg ist Observirt wordē, ...

Plate with text, $8\frac{3}{4}$ in. × $6\frac{1}{4}$ in. [*Augspurg*, 1682]

— Eigentliche Vorstellung Des Neu-entstandenen Cometen-Liechts / Nach seinem Lauff / Stand / Art / ... wie er erstes mal / den 15. Augusti / und so folgend ... beobachtet worden / A. 1682.

Broadside, $12\frac{1}{2}$ in. × $15\frac{1}{4}$ in., plate, $11\frac{1}{4}$ in. × $7\frac{1}{2}$ in., with text in two columns. [*Nürnberg*, 1682]

— Naukeurig Voorberigt van den schrikkelyken Comeet, dewelke zig waarschynelyk binnen korten zal vertonen. Zesde Druk.

1 plate (coloured), 70 pp. 8° *Leeuwarden*, 1756

— An account of the Remarkable Comet, whose Appearance is expected ... 1757, or ... 1758: ... Likewise Observations on ... Comets ... expected to appear in the Years 1789, 2255.

vii.+32 pp. 8° *London*, 1757

— The same. Second Edition.

vii.+32 pp. 8° *London*, 1757

— *See* Comets, Div. I. Anon. 1769.

— * Halley's Comet. 11 pp. 8° *London*, 1834

— * Ephemerides of Halley's Comet, For the Month of October, 1835, ...

1 p. 8° *London*, 1835

— Effemeridi della cometa d'Halley calcolate secondo i diversi elementi dei signori Damoiseau e Pontécoulant nell'occasione del ritorno ... al suo perielio il novembre del corrente anno 1835.

Chart, 27 in. × 11 in., 14 pp. 4° *Roma*, 1835

— * The Comet. 39 pp. 8° *London*, 1835

From the *Quarterly Review*, December, 1835.

Ångström, Anders Jonas: * Sur deux inégalités d'une grandeur remarquable dans les apparitions de la Comète de Halley.

1 plate, 10 pp. 4° *Upsal*, 1862

Apianus, Petrus: Practica auff dz. 1532. Jar ... Auch wirdt nachuolgend vom dem nechst erschinen Cometen / wie vnnd in was gestalt in gemelter Apianus obseruirt hat ... angezaygt.

40 ff. 4° *Gedruckt in Landszhut durch Georgium Apianum* (1531).

Woodcut on title, many diagrams.

After the "Practica" come detailed observations of the Comet of 1531 with complete reductions of the same, showing Apian's method of applying precession, solving triangles, &c. The fact that comets' tails are turned from the sun is frequently stated.

Bessel, Friedrich Wilhelm: * Beobachtungen über die physische Beschaffenheit des Halley'schen Kometen und dadurch veranlasste Bemerkungen. 2 plates, 24 pp. 4° *Altona*, 1836

Bollmann, L. F. von: *See* Comets, Div. I.

Clairaut, Alexis Claude: * Recherches sur la Cométe des Années 1531, 1607, 1682 et 1759, pour servir de Supplement à la Theorie, par laquelle on avoit annoncé en 1758 le tems du retour de cette Cométe.

1 plate, 42 pp. 4° *St. Petersbourg*, 1762

— *See* Comets, Div. I.

Cooper, Edward J.: Halley's Comet, as seen on the 22nd and 24th of October, 1835, ...

1 plate, 1 f. 4° s.l., s.a.

Damoiseau, Marie Charles Théodore de: * Mémoire sur l'époque du retour au périhélie de la Comète de l'année 1759. 76 pp. 4° *Turin*, 1820

Darlu, A.: *See* Littrow, C. L. von.

Eberhard, —: * Abhandlung von den Kometen, besonders demienigen, der im Mai des ietzigen Jahres sichtbar gewesen ist.

1 plate, 43 pp. 8° *Halle*, 1759

Eichler, Georg: Kurtze Beschreibung Des Cometens / welcher in diesem 1607. Jahre im Ende des Septembris ... in der Himlischen Wage / Scorpion vnd anfang des Schutzens sich hat nach der Sonnen Vntergang erzeiget.

4 woodcuts, 16 ff. 4° *Görlitz*, 1607

Woodcut on title.

Fas, Johannes Arent: Verhandeling over twee Comeeten uit de berekeningen van den Heer Halley, waar van de een door zijne terugkomst, aan de voorzegging voldaan heeft, en de ander verwagt word ...

1 plate, vi.+56 pp. 8° *Leyden*, 1787

Gelpke, A. H. C.: *See* Comets, Div. I.

Gilbert, S.: Gilbert's guide to, and history of, Halley's Comet. Fourth Edition.
1 woodcut, 11 pp. 8° [*London*, 1834]

Gleuns, William, Jr.: Iets over de Kometen. Met een kaartje, voorstellende de loopbaan der Komeet van Halleij in 1835.
1 plate, 15 pp. 8° *Groningen*, 1835

Gold, Charles: *See* Pontécoulant, P. G. D. de.

Hartmann, Fr. J.: Was hat die Welt zu fürchten von dem Kometen des Jahres 1834? Oder über die sechste Erscheinung des Halleyschen Kometen ... Nebst einer einleitenden Übersicht unsers Sonnensystems.
1 plate, 76 pp. 8° *Quedlinburg und Leipzig*, 1830

— The same.
1 plate, 76 pp. 8° *Quedlinburg und Leipzig*, 1831

— Was hat die Welt zu fürchten von dem Kometen des Jahres 1834? ...
1 plate, 48 pp. 8° *Quedlinburg und Leipzig*, 1833

Hecht, Heinrich August: Der schöne Halley, ein Komet, den wir mit dem Jahre 1834 wieder zu erwarten haben. ...
3 plates, v.+65 pp. 8° *Ilmenau*, 1833

Heis, Eduard: Der im October 1835 sichtbare halley'sche Komet in seiner wahren und scheinbaren Bahn während der Jahre 1835 und 1836.
2 plates, 36 pp. 8° *Köln*, 1835

Honold, Jacob: NVnCIVs sIDereVs æstIVVs nVper In AVgVsto & sVbseqVente SepteMbrI In aVrora VesperaqVe VIsVs. Das ist: Umständlicher Bericht Von dem Neuen Cometen/Welcher sich gegen dem Ende desz nächstverstrichnen Sommers 1682. desz Morgens und Abends hat sehen lassen.
1 chart, 13+2 pp. 4° *Ulm* [1682]

— Kurtzer Entwurff desz Neu-entstandenen Cometen / wie er sich im Monat Augusto dieses 1682. Jahrs hat sehen lassen. 2 ff. 4° *Ulm* [1682]
Chart on title-page, from the plate used for the preceding work.

Hooke, Robert: *See* Comets, Div. I.

Jahn, Gustav Adolph: Der vom August 1835 bis zum April 1836 sichtbare Halley'sche Komet in seinem Laufe dargestellt und erklärt, ...
1 plate, 64 pp. 8° *Leipzig*, 1835

Kaiser, Frederik: Verhandeling over de Komeet van Halley, hare vroegere verschijningen en de toekomstige in het jaar 1835, tevens inhoudende: een overzigt over alle Kometen wier omloopstijden met meerdere of mindere juistheid zijn bepaald.
1 chart, iv.+196 pp.+2 ff. 8° *'sGravenhage en Amsterdam*, 1835.

Kepler, Johann: Auszführlicher Bericht / Von dem newlich im Monat Septembri vnd Octobri disz 1607. Jahrs erschienenen Haarstern / oder Cometen / vnd seinen Bedeutungen. ...
1 woodcut, 20 ff. [last blank] 4° *Hall in Sachsen*, 1608.
Title in a woodcut border.

— *See* Comets, Div. I.

Köstner, Sebastian: Cometa. Kurtze beschreibung vnd vermutungen / von den Effectibus vnd wirckungen / desz wunderbaren ... Cometen vnd Schwantzsterns / Welcher erstlich den 15. vnd 16. Septembris Alten- ... Kalenders / ... in diesem ablauffenden 1607. Jahr / im Himlischen Zeichen desz Löwen grsehen [sic] worden.
6 ff. 4° *CoMeta arDebat In sIgno Vrsæ. In DIeM ChrIstI paratI sItIs. Philip. I.* [*Nürnberg*] 1608.
Woodcut of Comet on title.

Krautwadel, Michael: Anzaygung grüntlicher natürlicher vrsachen der natur / wachsung / vnderscheyd / farbē / gestalt / bewegung / bedeutnus &c. aller vñ sunderlich disz Newlich erschinen Cometen / ...
32 ff. 4° [*Landsperg*, 1531]
Woodcut on title.

Lalande, J. J. le F. de: *See* Comets, Div. I.

Lehmann, Jacob Wilhelm Heinrich: Die Wiedererscheinung des Halley'schen Kometen im Herbste dieses Jahres 1835, nach den zuverlässigsten Elementen und mit Berücksichtigung aller seit dem Jahre 1607 stattgefundenen Störungen durch die sieben Hauptplaneten und durch den Widerstand des Aethers auf's sorgfältigste berechnet und gemeinfaszlich dargestellt. 1 chart, 52 pp. 8° *Potsdam*, 1835

Littrow, Karl Ludwig von: Beyträge zu einer Monographie des Halley'schen Cometen. Bey Gelegenheit seiner Erscheinung im Jahre 1835 gemeinfasslich dargestellt.
2 plates, 72 pp. 4° *Wien*, 1834

Littrow, Carl Ludwig von—*continued.* De la Comète de Halley. Extraits de la notice historique de M. Littrow, ... Par M. A. Darlu.
2 plates, 60 pp. 8° *Meaux*, 1835

Littrow, J. J. von, und Littrow, K. L. von: *See* Comets, Div. I.

Majus, Theodor [Maius]: Kurtzer bericht Von dem Strobelstern Oder Cometen / so sich in diesem 1607. Jahr / jm Herbstmonat / am Himmel / ... erschienen / ...
8 ff. 4° *Magdeburg* [1607]
Woodcut on title.

Marchetti, A.: *See* Comets, Div. I.

Martin, B.: *See* Comets, Div. I.

Möbius, August Ferdinand: Die wahre und die scheinbare Bahn des Halley'schen Kometen bei seiner Wiederkunft im Jahre 1835 ...
1 plate, 35 pp. 8° *Leipzig*, 1834

— The same. Zweite Ausgabe.
1 plate, 41 pp. 8° *Leipzig*, 1835

Moore, F.: *See* Comets, Div. I.

Morrison, R. J.: Observations on Dr. Halley's Great Comet, which will appear in 1835; with a history of the phenomena attending its return for six hundred years past. ... Second Edition.
33 pp. 12° *London*, 1835

Nausea, Fredericus: Ad sacratissimvm Caesarem Ferdinandvm,... Friderici Nauseæ... super huius anni post Christum natum M.D.XXXI. & quolibet alio Cometa. Exploratio.
3 woodcuts, 17 ff. 4° *Coloniæ*, 1532
In his *Libri Mirabilium Septem.*
Woodcut on title, repeated twice in text.

— Ad sacratissimvm Caesarem Ferdinandvm ... Friderici Navseae ... super huius anni post Christum natum M.D.XXXI. & quolibet alio Cometa Exploratio.
3 woodcuts, 35 pp. 4° [*Coloniæ*, 1532?]
The same woodcut, repeated in the same way as in the other edition.

Placentzen, Vincentz von: Rechtliches Bedencken über die Cometen / Durch Veranlassung eines abermaligen ... / und in diesem August-Monat / uns zu erst zu Gesicht gekommenen ... Cometens / eröffnet.
36 pp. 4° s.l., 1682

Pontécoulant, Philippe Gustave Doulcet de: Notice sur la Comète de Halley et son retour en 1835, ...
1 chart, vii. + 132 pp. 12° *Paris*, 1835

— De Halleysche Komeet, en hare Wederkomst in 1835 ... naar het Fransch von G. de P...
1 chart, 4+97 pp. 16° *Breda*, 1835

— * Mémoire sur le Calcul des Perturbations et le prochain retour à son périhélie de la Comète de Halley.
73 pp. 4° *Paris*, 1835

— A History of Halley's Comet; with an account of its return in 1835,... Translated...by Charles Gold.
1 chart, 44 pp. 8° *London*, 1835

— Nachricht über den Kometen von Halley und seine Zurückkunft im Jahr 1835. ... Aus dem Französischen übersetzt von Evander.
1 chart, x.+134 pp. 12° *Heidelberg*, 1835

Röslin, Helisæus: Historischer / ... Discurs Von heutiger zeit Beschaffenheit / Wesen vnd Standt der Christenheit / ... Aus anleitung dero von *Anno* 1600 her am hohen Himmel erschienenen grossen Wunderzeichen / sonderlichen desz Cometens anno 1607. genommen. ...
8+52 ff. 4° *Straszburg*, 1609

Rothman, R. W.: * Account of Observations of Halley's Comet.
16 pp. 4° *Cambridge*, 1838

Sabinus, Georg: Ad Erasmvm Ebnervm Noribergensem, de cometa qui mense Augusto conspectus est, Anno M.D.XXXI.
116 ff. 8° [*In fine*]: *Argentorati apvd Cratonem Mylivm mense Martio, Anno M.D.XXXVIII.*
In Liber IIII. of *Georgii Sabini Brandeburgensis Poemata.*
The author married Melanchthon's daughter Anna.

Santini, Giovanni: * Osservazioni della Cometa periodica di Halley, fatte ... nell'anno 1835 ... seguite da alcune ricerche sulla sua Orbita, e precedute da brevi notizie istoriche intorno alla sua teoria. [Appendice alla precedente Memoria ...]
32 pp. 4° *Padova*, 1836

Smyth, William Henry: * Observations of Halley's Comet.
1 plate, 20 pp. 4° *London*, 1836

Stratford, William Samuel: * Ephemeris of Halley's Comet, 1835-6.
10 pp. 8° *London*, 1836

— * On the Elements of the Orbit of Halley's Comet, at its appearance in the years 1835 and 1836.
81 pp. 8° *London*, 1837

Struve, Friedrich Georg Wilhelm von: Beobachtungen des Halleyschen Cometen bei seinem Erscheinen im Jahre 1835 auf der Dorpater Sternwarte angestellt.
12 plates, 132 pp. fol. *St. Petersburg*, 1839

Vulpius, Johann: Kurtze Jedoch vollständige Beschreibung: Des Neulich-erschienenen und über 4. Wochen gewähreten Comet-Sterns / Welcher in der andern Helffte des Augustmonats ... lauffenden 1682. Jahres erschienen...
4 ff. 4° *Leipzig* [1682]

Woeckel, Lorenz: Ueber die Kometen, besonders den im Laufe dieses Jahres erscheinenden, groszen Halley'schen.
1 chart, 43 pp. 8° *Nürnberg*, 1835

Division III.—Comets of one appearance.

Comet 371 B.C.

Klinkerfues, Ernst Friedrich Wilhelm: Ueber die Kometen-Erscheinungen von 371 v. Chr., 1668, 1843 I und 1880 I.
1 map, 8 pp. 8° *Göttingen*, 1880

Comet 975.

Hoek, M.: *See* Comet 1556.

Reslhuber, Augustin: Bericht über die Kometen von den Jahren 975, 1264 und 1556.
22 pp. 8° *Linz*, 1857

Comet 1162.

Klinkerfues, E. F. W.:
See Comets, Div. II. 7. Comet Biela.

Comet 1264.

Bomme, B.: * Proeve eener Berekening der Storingen in de Loopbaan der Komeet van 1264-1556, tot haren waarschijnlijken terugkeer.
1 table, 24 pp. 4° *Amsterdam*, 1850

Hind, John Russell: On the expected Return of the great Comet of 1264 and 1556; with a history of former appearances, compiled from various authors and ephemerides for facilitating its re-discovery. 78 pp. 8° *London*, 1848

Hoek, M.: *See* Comet 1556.

Kaiser, F.: *See* Comet 1556.

Reslhuber, A.: *See* Comet 975.

Rosenhof, C.: *See* Comet 1556.

Comet 1402.

Angelus, Jacobus: Tractatus de cometis. [Capitulū sextū d' dispositiõe et forma ɔmete et ei9 colore quia apparuit his diebus (*February*, 1402) ... Capitulū septimū de significatione comete presentis anni naturallter introducte.]
16 ff. 4° s.l., s.a. [sed ante 1500] [*In fine*]: *Cõpilat9 est iste tractat9 et ɔplet9 per Jacobum angeli de vlma mgr̃m in artib9 ac licentiatū in medicinis phicū illustr7 prīcipis. prīcipis duc7 Leupoldi duc7 aust'e.*

Comet 1532.

Apianus, Petrus: Ein kurtzer bericht d'Obseruation vnnd'vrtels / des Jüngst erschinnen Cometen / jm weinmon vñ wintermon dises XXXII. Jars ... wargenommen vnnd practicirt.
10 woodcuts, 12 ff. 4° [*Ingolstadt*, 1532]
Woodcut on title. Many figures showing that comets' tails are turned away from the sun.

Méchain, Pierre François André: * Recherches sur les comètes De 1532 & de 1661.
1 plate, 64 pp. 4° *Paris*, 1782

Comet 1542.

Anonymous: Newe zeytung von Constantinopoli. Von einem Comet der bisz in die 40. tag am hymel ober des Türcken pallast gestanden ist.
Von einem fewren Tracken / der dem grossen Türcken seinen schatz verprent vnd verderbt / vnd das new schlosz verprent hat,...Von grossen Erdtbidmen....
4 ff. 4° s.l., s.a. [*In fine*]: *Datum Constantinopoli Adi 15. da Luio 1542. Jar Ausz Italianischer sprach in Teüsch gepracht.*

— Newe zeytung von etlichen wunderzeychen / so gesehen sind worden in lüfften / ... Ausz der Welschen sprach ins Teutsch gebracht.
8 ff. [last blank] 4° s.l., 1543
Curious figure of a comet on titlepage, with inverted *reflex* legend "ORIZON OBLIQVVS," and underneath, "Disz ist der form des Cometen / so newlichen drey tag aneinander vber der Stat Florentz gestanden / so ist er 15. tag aneinander für vnd für vber der Stat Constantinopolis ober dem Pallast des Türckischen Keysers / gestanden / vnd gesehen worden."
These tfacts are interesting as proving that some remarkable appearance was seen in 1542, and that there is no confusion of dates with the comet of 1548, as conjectured by Pingré.

Comet 1556.

Anonymous: Warhafftige newe Zeitung vnnd Geschicht / geschehen zu Aldenburg / am Neundten tage des Augstmonds / dises gegenwertigen M.D.Lvi. Jars.
4 ff. 4° s.l. [1556] *Gedruckt durch Valentin Geyszler.*
On the title is a cut of Christ showing a comet to his disciples.

— The approaching Comet.
7 pp. 8° *London*, 1857
Plate on title.

— The Great Comet, now rapidly approaching, will it strike the earth? ... 24 pp. 8° *London*, 1857

Bomme, B.: *See* Comet 1264.

Carrington, R. C.: *See* Lycosthenes, C.

Cuno, Jacob: Von dem erschrecklichen Cometen / vnd vngewönlichen Wettern / so wir im anfang dieses lauffenden M.D.LVI. jares gesehen ...
9 ff. 4° [*Brandenburg*] 1556
Woodcut on title.

Gubertus, Antonius: De Cometa, qui anno 1556. multos dies emicuit, & rebus posteà insecutis.
6 pp. 4° *Lvgdvni* 1561
In *Ant. Gvberti, ... Polyhistor.*

Hind, John Russell: The Comet of 1556; being popular replies to every-day questions, referring to its anticipated Re-appearance, with some observations on the Apprehension of Danger from Comets. xii.+69 pp. 12° *London*, 1857

— *See* Comet 1264.

Hoek, Martinus: De Kometen van de Jaren 1556, 1264 en 975, en hare vermeende identiteit. Academisch Proefschrift ...
1 plate, 4 ff.+94+4 pp. 4° *'s Gravenhage*, 1857

Jahn, Gustav Adolph: Der grosze Komet von 1556 und seine bevorstehende Wiederkehr.
38 pp. 8° *Leipzig*, 1856

— Der Grosze Komet und seine bevorstehende Wiederkehr. Zweite ... Auflage bearbeitet von Richard Schurig.
1 chart, 40 pp. 8° *Leipzig*, 1857

Jenssen-Tusch, G. F. von: *See* Rosenhof, C.

Kaiser, Frederik: * Inlichtingen omtrent de Groote Komeet, wier verschijning men thans verwacht. 40 pp. 8° *Leiden*, 1856

Kaiser, Frederik—*cont.* * Nadere Inlichtingen omtrent de Groote Komeet, wier verschijning men thans verwacht. 14 pp. 8° *Leiden*, 1857

Littrow, Karl Ludwig von: * Drei Quellen über den Kometen von 1556.
1 plate, 15 pp. 8° *Wien*, 1856

Lycosthenes, Conrad: [Reprint by R. C. Carrington of the passages in the work of Lycosthenes (published at Basle in 1557), upon the Comet of 1556.] 2 pp. 4° [*London*] 1856

Podmore, J. B.: A Lecture on Astronomy ... containing important communications from the highest authorities upon the expected Comet of 1556. ... 48 pp. 8° *Birmingham*, 1858

Reslhuber, A.: *See* Comet 975.

Rosenhof, Claudius: Der grosze Komet oder: Ist es möglich und wahrscheinlich, dasz die Erde am 13. Juni 1857 untergehen wird? Nach der 3ten Auflage des dänischen Originals von C...R... frei übertragen und erweitert von G. F. von Jenssen-Tusch. 16 pp. 8° *Altona*, 1857
Woodcut on title.

Schurig, Richard: *See* Jahn, G. A.

Comet 1577.

Anonymous: Vom Cometen / So jtzund in Latitudine Meridionali ascendente / ... / sich ereugnet / kurtzer Bericht / ... Durch einen Liebhaber der Astronomey vordeudscht / vnd in Druck vorfertiget. 4 ff. 4° s.l., 1577
Woodcut on title.

— Newe Zeitung / Von dem Cometen / So jetzt im Nouember dieses 1577. Jares / vast in aller Welt erschienen / vnd sonderlich wie derselbig im Obernlande zu Aussburg vnd Nürmburg ist gesehen worden / ... 4 ff. 4° s.l., s.a.
Woodcut on title.

Brahe, Tycho: De mvndi ætherei recentioribus phænomenis. Liber secvndvs. [De Cometa anni 1577.] 8 ff.+465 pp. 4° *Francofvrti*, 1610

— Opervm de mvndi ætherei recentioribus et phænomenis pars secvnda. Editio ultima. [De cometa anni 1577.]
217 pp. 4° *Francofvrti*, 1648
Many diagrams and 2 full-page woodcuts of instruments.

Brahe, Tycho—*continued.* Observationes septem cometarum ex libris manuscriptis qui Havniae in magna bibliotheca regia adservantur. Nunc primum edidit F. R. Friis.

5 plates, viii.+120 pp. 4° *Havniae*, 1867

Busch, Georg: Beschreibung, von zugehörigen Eigenschafften / vnd natürlicher Influentz / des grossen vnd erschrecklichen Cometen / welcher in diesem 1577. Jahre erschienen. ...

3 woodcuts, 16 ff. [last blank] 4° *Gedruckt zu Erffurdt / durch Esaiam Mechlern / zum bundten Lawen / bey S. Paul.*

Woodcut on title.

Creat, Johan: *See* T., Johan Creat.

Friis, F. R.: *See* Brahe, Tycho.

Gemma, Cornelius: De prodigiosa specie, natvraq. cometæ, qvi nobis effvlsit altior lvnæ sedibus, insolita prorsus figura, ac magnitudine, anno 1577. plus septimanis 10. Apodeixis tum Physica tum Mathematica. ...

2 charts, 2 woodcuts, 66 pp.+5 ff. 8° *Antverpiæ*, 1578.

Gropler, Joachim: Astrologische Beschreibung Des erschrecklichen / langkschwentzigen vnd vngehewren Cometen / so im Nouembre des 77. Jares / ... bey uns erstlich erschienen...

24 ff. 4° *Wittenberg*, 1578

Woodcut on title.

Henisch, Georg: Ivdicivm de Pogonia ad finem anni M.D.LXXVII. conspecto.

12 ff. [last blank] 4° *Avgvstæ*, 1578

Woodcut on title.

Hooke, R.: *See* Comets, Div. I.

Liberati, François: Discovrs de la Comete commencée à apparoir svr Paris le XI. iour de Nouembre, mil cinq cens septante-sept, à six heures du soir. ...

8 ff. [last blank] 8° *Paris*, 1577

Woodcut on title.

Marchetti, A.: *See* Comets, Div. I.

Meyne, Matthias: Von aller geschlecht der Cometen / jeder zeit / wan die erscheinē zugebrauchen / vnd von dessen wirckungen / der vns zu Dantzigk den 12. Nouembris dieses 1577. Jar erschienen ist. 16 ff. 4° *Dantzigk*, 1578

Woodcut on title.

Montelli, Ascanio: Lettres dv seignevr A... M..., traduit d'Italien en François. Contenant la prediction des affaires de Flandres, ... selon la signification d'vn Comette apparue n'agueres: les Eclipses de la Lune ...

20 ff. 8° *Paris* [1578]

From the Sunderland Library. Woodcut on title.

Nagel, P.: *See* Comet 1618.

Nolthius, Andreas: Observatio, Vnd Beschreibung des Cometen / welcher im Nouembri vnd Decembri / des 77. vnd noch im Januario / dieses 78. Jharsz erschienen ...

20 ff. [last blank] 4° *Erffurdt* [1578]

Woodcut on title.

[Portantius, J.]: Kurtze Erklerung / von den eigenschafften desz grossen / im M.D.LXXVII. jars erschienen vnd noch brinnenden Cometen / Saīnt seiner bedeutung / ...

8 ff. [last blank] 4° [*Nürmberg*, 1577]

Woodcut on title.

Prætorius, J.: *See* Comets, Div. I.

Rasch, J.: *See* Comets, Div. I.

Rœslin, Helisæus: Theoria nova Coelestivm METEΩPΩN, in qva ex plvrivm cometarvm phoenomenis Epilogisticῶs quædam afferuntur, ... svper qvibvs Cometa anni M.D.LXXVII. ... ad superioribus annis conspectam stellam ... progressus, Harmoniam ... habuit, ...

1 chart, 12 in. × 14 in., 33 ff. 4° *Argentorati*, 1578

Scultetus, Bartholomæus: Cometæ, anno hvmanitatis I.C. cIↃ.IↃ. Lxx. Vii. à 10. Viiiibris per Xbrem in 13. Ianuarij sequentis anni, continuis Lx. & V, D. in sublunari regione adparentis, descriptio. ...

32 cuts and diagrams, 52 ff. 4° [*In fine*]: *Gorlicii Excudebat Ambrosius Fritsch, Anno* 1578.

Squarcialupus, Marcus: De Cometa in vniversvm, atque de illo, qui Anno 1577. visus est.

2 woodcuts, 77 pp. 4° *Jenæ*, 1665

In Andreas Bose's *De Significatu Cometarum.*

[Steinmetz, Valentin]: Von dem Cometen welcher im Nouember des 1577. Jars erstlich erschienen / vnd noch am Himmel zusehen ist / ... obseruirt vnd beschrieben in Leiptzig.

12 ff. 4° [*In fine*]: *Gedruckt zu Magdeburg durch Joachim Walden* [1577].

Woodcut on title.

T., Johan Creat: Kurtze Beschreibunge des Cometen / welcher ist gesehen worden am Himmel / Anno 1577. den 11. Nouembris / Auch von etlichen Wunderzeichen die vorher gegangen sein / zu trewer warnung an alle Christen geschrieben.
Woodcut on title. 6 ff. 4° s.l., s.a.

Winckler, Nicolaus: Cometa Pogonias, qvi anno labente 1577. mense Novembri et Decembri apparvit, demonstratus vnà cum parallaxi, distantia à Centro terræ, & significatione eius.
4 woodcuts, 12 ff. 4° *Noribergæ*, 1578
Woodcut on title.

Woldstedt, Fridericus: De gradu praecisionis positionum Cometae 1577 a ... Tychone Brahe per distantias ... determinatarum et de fide elementorum orbitae...[Inaugural Dissertation.]
15 pp. 4° *Helsingforsiae*, 1844

Comet 1580.

Brahe, Tycho: *See* Comet 1577.

Cæsius, Georg: Practica Von den vier Zeiten / Finsternussen / Cometen / etc. vnd derselben bedeutungen / Auff das Jar ... M.D.LXXXII. ... beschriben ...
16 ff. 4° [*In fine*]: *Gedruckt zu Nürnberg / durch Valentin Fuhrman* [1581].
Woodcut on title.

Rasch, J.: *See* Comets, Div. I.

Rivander, Zacharias: Von dem Newen Cometstern welcher das vergangene 1580. jar gesehen worden: ... 12 ff. 4° *Wittemberg*, 1581
Cut on title. Mentions an aurora as occurring Sep. 10, 1580.

Schjellerup, H. C. F. C.: * Tycho Brahes Original-Observationer, benyttede til Banebestemmelse af Cometen 1580.
39 pp. 4° *Kjöbenhavn*, 1854

Straub, Leonhart: Prognosticon Astrologicvm. Practica Teutsch / Von den Vier Zeiten / Finsternussen ... Auff das Jar M.D.LXXXII. Darbey wirt auch von dem Cometē / so sich Anno 1580. im October / ... angezündt: auffs kürtzest geschriben. 8 ff 4° *S. Gallen* [1581]

Comet 1582.

Brahe, Tycho: *See* Comet 1577.

Comet 1585.

Brahe, Tycho: * Observationes cometae anni 1585. Uraniburgi habitae a Tychone Brahe.... Edidit H. C. Schumacher.
3 plates, 30 pp. 4° *Altonae*, 1845

Brahe, Tycho—*continued.* *See* Comet 1577.

Rothmann, Christoph: *See* Comet 1618. Snell, W.

Comet 1590.

Brahe, Tycho: *See* Comet 1577.

Comet 1593.

Brahe, Tycho: *See* Comet 1577.

Comet 1596.

Brahe, Tycho: *See* Comet 1577.

Rechperger, Guilhelmus: Ivdicivm breve in præcipva capita redactvm cometæ qvi anno M.D.XCVI. à die 14. Julij vsq; / in diem secundum Aug. Viennæ conspectus est: ...
12 ff. 4° *Viennae Austriae*, 1596

Comet 1618.

Anonymous: Stellæ Crinitæ descriptio: Das ist / KVrtzer vnd einfältiger doch gründlicher Bericht desz in Monat Nouember vnd December abgewichenen 1618. Jahres / New erschienenen Cometen / ... Durch Einen der Astronomy vnd Historien Liebhabern.
16 pp. 4° *Franckfurt*, 1619
Plate on title and full-page engraved map.

— Corte beschrijvinghe ende Affbeeldinghe des seer grooten ende schrickelijcken Comeets, de welcke den 27. November in't Iaer 1618. ons verschenen is. 4 ff. 4° *Leyden*, 1619
Plate on title.

— Aenmerckinghe op de tegenwoordige Steert-Sterre, Ende den loop deser tijden so hier als in ander Landen, ... 10 ff. 4° s.l. [1619]
Plate on title.

— Eigentliche verzeichnus dieses im Jahr 1618. erscheinenden Cometen, welcher lauff ... alhie vor augen gestellet wirdt.
Plate with text, 12 in. × 9½ in., *Designauit M. Casparus Hersbach, Agrippinas.* s.l., s.a.

— Expolitio famæ sidereæ novæ Faulhaberianæ, Das ist. Statliche Auzsputzung / desz hochfliegenden / ... offentlichen Faulhaberischen Auszschreibens/an alle Gelehrte in gantz Teutschland. Anlangend den newen / ... Cometsterns. ...
25+1 pp. 4° s.l., 1619

Anonymous—*continued.* Newer Comet Stern, so in dem 1618. Jahr den ersten December erschinen welcher zue Augspurg ... ist gesechen worden.

Plate with text, $3\frac{1}{8}$ in. × $4\frac{1}{2}$ in., *Felix. Schmu: fe.* s.l., 1619.

— Von dem dreyssigjährigen Teutschen-Kriege / welcher sich Anno 1618. angefangen ... hat; Eben als wann Gott durch den 1618. erschröcklich leuchtenden Cometen / welcher dreyssig Tage über Europam gesehen worden / einen dreyssigjährigen Krieg verkündiget hätte. Ein Auszzug / Wieviel Schlachten diese Jahre über ... geschehen / ...

12 ff. 4° [*In fine*]: *Summa der bewust Erschlagenen / ist auf das wenigste gerechnet: Dreymal hundert / vnd fünff vnd zwaintzig tausend Mann,* s.l., 1648.

— Anno 1618 im Nouember Wart Diser Commet Sternn Geschehen Gegen Dem Aufgang Der sunen ... Plate, $8\frac{1}{4}$ in. × $10\frac{3}{4}$ in., s.l., s.a.

Arthusius, Gothardus: Cometa Orientalis, KVrtze vnd eygentliche Beschreibung desz newen Cometen / so im November desz abgelauffenen 1618. Jahrs in Orient / ... erschienen / ...

12 ff. [last blank] 4° *Franckfurt am Mayn,* 1619

Plate on title.

Bainbridge, John: An astronomicall description of the late Comet from the 18. of Nouemb. 1618. to the 16. of December following.

Map, 16 in. × 9 in., 32 pp. 8° *London,* 1619—*Reprinted* 1811.

Small woodcut on title.

Crüger, Peter: Kurtzer Bericht Von dem grossen noch zur zeit scheinenden Cometen: Prodromus subsecuturi Tractatus plenioris. Concipiret den 18. Decemb. Anno 1618.

6 ff. 4° *Dantzigk* [1619]

Rude woodcut on title.

Cysat, Johann Baptist [Cysatus]: Mathemata Astronomica de loco, motv, magnitvdine, et cavsis Cometæ qvi svb finem anni 1618. et initivm anni 1619. in cœlo fvlsit; ...

4 ff.+80 pp.+2 ff. 4° *Ingolstadii,* 1619

Many woodcuts of the Comet.

Dasen, Georg [Dasenius]: Christliche betrachtunge vnd einfeltiger Bericht vnd gründliche erklerung Des Cometen oder Geschwantzeten FEwrsterns / Welcher ... im Monat Novembri dieses 1618. Jahrs in hemisphærio boreali hat sehen lassen. 16 ff. 4° *Rostock,* 1618

Woodcut on title.

Ehinger, Elias: Jvdicivm astrologicvm, Von dem Newen Cometa Welcher den 1. Decemb. 1618. ... zu Augspurg ... gesehen worden.

6 ff. 4° *Augspurg* [1619]

Contains also a list of Comets.

Faulhaber, Johann: *See* Goldtbeeg, J. G.

Fienus, Thomas et Fromondus, Libertus: De cometa anni CIↃ. IↃC. XVIII. dissertationes Thomæ Fieni ... et Liberti Fromondi. Eiusdem Thomæ Fieni Epistolica quæstio. An verum sit, Cœlum moueri, & Terram quiescere.

153 pp.+1 f. 8° *Antverpiæ,* 1619

Fromondus, Libertus: Meteorologicorvm libri sex. [Liber tertivs: De Cometis.]

6 ff.+420 pp.+8 ff. *Antverpiæ,* 1627

— *See* Fienus, T.

Goldtbeeg, Julius Gerhard: Fama syderea nova. Gemein offentliches auszschreiben Desz...Herrn J....Faulhabers / &c....Anlangend DEn Neuen: vnd durch ein sonderbare Invention lang zuvor prognosticirten Cometstern / So den 6. ... Decembr. ... 1618 ... verfast vnd abgangen; ...

1 plate, 12 ff. 4° *Nürnberg,* 1618

At foot of last page after "Ende" and tailpiece is the catchword "Proble- ."

Grasser, Johann Jacob und Grossen, Johann Georg: Christenliches Bedencken; auch Natürlicher / Historischer vnd Schrifftmässigen Bericht / von dem erschrockenlichen Cometen / Der in dem auszlauffenden 1618. Jahr sich in Europa sehen lassen ... Widerumb auffgelegt vnd vermehret / wegen der trewenden Comet-Ruten / dises auszlauffenden 1664. Jahrs.

2 ff.+28 pp. 4° *Zürich* [1664]

Woodcut on title.

Grassi, Oratio: De tribvs Cometis anni M.DC.XVIII. Disputatio Astronomica Publicè Habita in Collegio Romano Societatis Jesv ab Vno ex Patribus eiusdem Societatis.

12 pp. 4° *Bononiae,* 1655

Grossen, Johann Georg: *See* Grasser, J. J.

Habrecht, Isaac: Kurtze vnd Gründliche Beschreibung / Eines Newen vngewohnlichen Sterns / oder Cometen. Welcher anfangs vor der Sonnen auffgang / nachmahlen auch nach ihrem Vndergang /...durch den Bootem,...im November vnd December / disz 1618. Jahr erschienen.
3 ff+70 pp. 4° *Straszburg*, 1618
Woodcut of the comet in Bootes on title.

Hebenstreitt, Johann Baptista: Cometen Fragstück / ausz der reinen Philosophia, Bey Anschawung desz in diesem 1618. Jahr / in dem Obern Lufft schwebenden Cometen,erläutert / ...
1 f.+21+1 pp. 4° *Vlm*, 1618
Woodcut on title. Many MS. notes.

Herlicius, David: Prodromus vnd Erster Vortrab / Oder Kurtze vnd Einfeltige Erklerung / Desz Cometen / oder Geschwäntzten Sterns / so sich im November desz M.DC.XVIII. Jahres hat sehen lassen.
6 ff. [last blank] 4° *Nürmberg*, 1618
Woodcut on title.

— Kurtzer Discvrs Vom Cometen / vnnd dreyen Sonnen / so am ende des 1618 Jahrs erschienen sind / ...
32 ff. 4° *Gedruckt zu Alten Stettin*, 1619
Woodcut on title.

— Kurtze vnd einfältige Erklärung Des Newen Cometen / oder geschwäntzten Sterns / so sich im November des 1618. Jahrs hat sehen lassen.
4 ff. 4° [*In fine*]: *Gedruckt zu Alten Stetin*... 1619.
Woodcut on title.

Hersbach, Caspar: Kurtzer Discurs / Darinnen die Natur / Lauff vñ Bedröwung des Cometen / so Anno 1618. im Decembri erschienen ... verzeichnet wird.
17 woodcuts, 28 ff. 4° *Cölln*, 1619
Woodcut on title.

Hoppenerus, J.: Kurtze erklerung vnnd beschreibung / des Newen Cometens dieses 1618. Jahrs.
7 ff. 4° *Rostock*, 1618
Title-page wanting.

Kepler, J.: *See* Comets, Div. I.

Majus, Theodor [Maajus]: Zorn Ruthe. So der ewige Gott ... / vnter dem Himmel in der Lufft / in gestalt eines Roth Fewrigen Sterns mit einem erschrecklichen langen Schwantz oder Besem lodernd vnd Brennend erzeiget / ...
14 ff. 4° *Magdeburg*, 1618
Woodcut on title.

— Historische warhafftige Beschreibung / von den Cometen / Auch des erschrecklichen Newen Cometen Sterns / Welcher am Firmament des Himmels / in Novemb. des abgewiechenen 1618. Jahrs / sich hat sehen lassen / vnd noch gesehen wird. 12 ff. 4° *Magdeburg*, 1618
Woodcut on title.

Müller, Philipp: Hypotyposis Cometæ nuperrime visi, una cum brevi repetitione doctrinæ cometicæ ... 30 ff. 4° *Lipsiæ*, 1619
Plate on title.

Nagel, Paul: Stellæ prodigiosæ seu Cometæ per oculum triplicem observatio & explicatio. Das ist: Des newen Cometen vnd Wunder Sterns im October / November vnd December, 1618. erschienen / warhafftige Deutung vnd Auszlegung per Magiam insignem, dergleichen zuvor nicht gesehen: ... 32 ff. 4° [*Argeliæ*] 1619
2 Editions. Woodcut on title.

— Ander Theil Des in 1618. Jahre erschienen vnd verschienenen Cometen / ... / eine kurtze warhafftige deutung vnd interpretation Des newen wuñder-Sterns 1572. vnd des Cometen 1577. erschienen / wird auch angezeigt wie der Comet 1577. mit den Cometen 1618. in einer Harmonia stehe / ... 28 ff. 4° [*Argeliæ*] 1619
Woodcut on bordered title.

Procopius, Johann: Κομητοδικαιολοπροσιασία Oder Cometenbutzer / Das ist: EIne glaubwürdige Copey Articulierter vnnd rechtmässiger Klag / desz guten / vnschüldigen Cometen / welcher im ... 1618. Jahr erschienen ...
8 ff. 4° s.l., *Gedruckt in Parnassischer Buchdruckerey*, 1619.

— Κομητοπροστασιεκδικητὴς Oder Cometenbutzers Schützer / Das ist / Eine glaubwürdige Copey articulierter, rechtmessiger Exceptionum,...desz guten / Vnschuldigen Cometen / welcher in verwichenen 1618. Jahr erschienen / ...
16 ff. 4° s.l., *Gedruckt in der Parnassischen Buch-Truckerey*, 1619.

Puteanus, Erycius [van der Putten]: De Cometa Anni ∞. IↃC.XVIII. [1618] Nouo Mundi Spectaculo, Libri dvo. Paradoxologia.
166 pp. 12° *Coloniæ*, 1619

Rademan, August: Gründliche vnd warhafftige Beschreibung des grossen vnd erschrecklichen Cometen, DEr mit gewisser Muthmassung in dem Manat Octobris / dieses 1618. Jahrs / seine Entzündung empfangen / ...
16 ff. [last blank] 4° *Erffurt*, 1619
Woodcut on title.

Rhodius, Ambrosius: Ambrosii Rhodii Mathematici ac Medici Cometa Per Bootem.
16 ff. 4° [*Wittebergæ*] *Apud Paulum Helvvigium Bibliopolam* [1619].
Chasles 3306. Large woodcut of Bootes on title.

Snell, Willebrord [Snellius]: Descriptio Cometæ, qui anno 1618 mense Novembri primùm effulsit. Huc accessit Christophori Rhotmanni ... Mathematici descriptio accurata cometæ anni 1585. Nunc primum à Will. Sn. R. F. in lucem edita.
4 ff.+156 pp. 4° *Lvgdvni Batavorvm*, 1619

Uttenhofer, Caspar: Judicium de nupero Cometa Astrologo-Historicum. Kurtzer Bericht vnd Erklärung / Was von dem neuen Cometen / oder geschwentzten Stern / so sich dieses zu endlauffenden 1618. Jahrs / ... sehen lassen / zuhalten ...
24 ff. 4° *Non est CoMeta, qVI bonI qVID sVggerat. Nürnberg*, 1619.
Woodcut map on title.

Weigel, E.: *See* Comet 1664.

Welper, Eberhard: Observationes Astronomicæ & Prædictiones Astrologicæ Genommen ausz dem Stand vnd Lauff des im nechstabgeloffenen 1618. Jahrs im Monat Novembri erschinenen grossen Cometens. 4° *Strassburg*, 1619
Plate on title. 2 ff.+4 pp., but incomplete.

Comet 1652.

Anonymous: Beschreibung Auff: vnd Vntergang desz Vngewöhnlichen Newen Stern-Liechts / So sich ... vom 19. Decembr 1652. bisz auff den 3. Januarii 1653. am Himmel sehen lassen / wo / vnnd wie es seinen Lauff gehalten / vnnd was darbey observirt. 2 ff. 4° [*Augspurg*, 1653]

Anonymous—*cont.* Caspa Apodictica Cometæ Anno M.DC.LII. ad III. visi. *Ad situm oculi super cælos positi et ad Septent. versi Eruditioribus fecit Astrophilus.* Compas des Cometen so A° 1652. ad 3. gesehen ist.

Magnitudo apparens Cometæ Ratisponæ et alibi. A° MDCLII. Die grosse vnd form des Cometen wie derselbe zu Regensburg den $\frac{14}{24}$ $\frac{15}{25}$ $\frac{16}{26}$ Dec. ist gesehen.

Double plate, $8\frac{3}{4}$ in. × $11\frac{1}{2}$ in., sheet, $15\frac{1}{2}$ in. × $12\frac{1}{4}$ in., 3 cols. text, *Getruckt zu Cölln / Bey Abraham Hohenberg / vnder Helmschläger im gülden Ring. Anno* 1653.

— Eigentlicher Abrisz vnd Situation desz Newen Sterns / wie derselbe zu Regenspurg / vnd anderer Orthen im H. Röm. Reich / den $\frac{14}{24}$ $\frac{15}{25}$ $\frac{16}{26}$ Decembris des 1652ten Jahrs / Observirt vnd gesehen worden.
Sheet, $9\frac{1}{2}$ in. × $10\frac{1}{2}$ in., s.l., s.a.
Four figures of the comet.

— Eigentlicher Abrisz vnd Situation desz newen Sterns wie derselb zu Regenspurg. und anderen orten im H. Röm. Reich den 14. 15. 16. Decembris desz 1652ten Jahrs Observiert vnd gesehen worden. 2 plates, $8\frac{1}{2}$ in. × $5\frac{1}{4}$ in., s.l., s.a.

— *See* Comet 1680.

Cæsar, Johann: Des Cometen, So im Decembr: 1652, erschienen / lauf / höhe von der erden / grösse und muthmaszliche bedeutung. ...
18 ff. 4° *Hall in Sachsen*, 1653

Gartow, Janus von der: Ein Kurtzer Bericht Von dem Comet oder neuen Stern / der allhie in Hamburg / im Jahr Christi 1652. den 11. December / am Abend gesehen / ... vnd noch wird gesehen. 4 ff. 4° *Nürmberg* [1653]

Licetus, Fortunius: De Cometæ An. MDCLII. MDCLIII. observationibvs astronomicis, Evropa fere tota peractis,...Cum triplici Indice, Capitum, Autorum, & rerum notabilium.
10 ff.+216 pp. 4° *Vtini*, 1653

Marche, Caspar: Anmerckung Vnd Natürliche Gedancken / nebest Astrologischen Muthmassungen Von dem Im ablauffenden 1652sten Jahre Auf Cometen-Art / wiewol tunckel vnd kurtz-erschienen Newen Stern / ...
16 ff. 4° *Stralsund*, 1653
Rude woodcut on title.

Schimpffer, Bartholomæus: Kurtze Beschreibung Des dunckelen Cometen So Anno 1652. den 8. Decembr. erschienen / ... 14 ff. 4° *Hall*, 1652

Woodcut on title.

Schorer, Christoph: Christoph Schorers Bedencken / Von dem Cometen desz 1652. Vnd Erdbewegung desz 1653. Jahrs.

4 ff.+43 pp.+4 ff. 4° *Basel*, 1653

Plate of Orion on title.

Trew, Abdias: Observationes des jüngst erschienenen Cometen Sambt Muthmassung von dessen Würckung und Bedeutung. Mit zweyen nothwendigen Kupffern versehen.

2 plates, 2 ff.+11+1 pp. 4° *Nürnberg*, 1653

— *See* Comets, Div. I.

Weigel, Erhard: Commentatio astronomica de Cometa novo Qui sub finem Anni 1652. lumine sub obscuro nobis illuxit.

1 plate, 30 ff. 4° *Jenæ*, 1653

Welper, Eberhard: Historische Relation Mit angehenckter Astronomischen vnd Astrologischen Beschreibung / desz im Christmonat 1652. am Himmel erschienenen wolbedencklichen newen Cometens. ...

43 pp. 4° *Straszburg*, 1653

Plate on title.

Comet 1661.

Anonymous: Warhafftige Beobachtung desz jüngsterschienenen Cometen / so von unterschiedlichen Orten und Zeiten glaubwürdig einkommen. 2 ff. 4° [*Olmütz*, 1661]

— Beschreibung Des newen Liechts / so Anno 1661. über halben Jenner angefangen sich sehen zulassen / vnd den 11. Febr. darauff das letzte mahl gesehen worden vmb vnd zu Augspurg; ...

2 ff. 4° *Augspurg*, s.a.

Woodcut on title.

— Kurtze Auffmerckung über den Comet-Stern / welcher sich desz Morgens in diesen Landen gegen Südt-Osten sehen lassen / im Jahr 1661.

Broadside, 15½ in. × 11 in., plate, 4¼ in. × 5½ in., and 4 cols. of text, s.l., s.a., but *Nach der zu Hamburg getrückten Copey übersetzet.*

— *See* Comet 1680.

Englefield, Henry: Tables of the apparent places Of the Comet of 1661, whose return is expected in 1789. 2 plates, vi.+25 pp. 4° *London*, 1788

Gadbury, J.: *See* Comets, Div. I.

M., E. W.: Die Erste Observation desz Cometens / Gehalten zu Straszburg den 29. Jenner desz lauffenden 1661. Jahrs / Morgens umb 5. Uhr.

10 ff. 4° s.l. [1661]

Plate on title.

Méchain, P. F. A.: *See* Comet 1532.

Mittendorff, B.: *See* Comets, Div. I.

Weigel, E.: *See* Comets, Div. I.

Comet 1664.

Anonymous: Dieser schrekliche Comet Stern ist zu Grätz den 2 Ianuari Anno 1664 das erste mahl, und hernach den 17 dito zu Rakelsburg und Czackathurn gesehen worden, ...

Plate, 8½ in. × 6½ in., *zu finden bei Iacob Sandrart*, s.l., s.a.

A copperplate of the comet showing two tails.

— Abbildung desz Neuen Comet- und Wunder-Sterns / Wie sich derselbe in den Innern Oesterreichischen Landen / und benachbarten Croatischen Orten / besonders aber über Rackelspurg und Czackenthurn ... den 12. Januarii dieses 1664 sten Jahrs / ... / hat sehen lassen.

Fol. broadside, 11½ in. × 7½ in., plate, 3½ in. × 6 in., *Zufinden in Nürnberg bey Paulus Fürst* [1664].

Beneath the title is a copperplate of the comet very rudely drawn :—follow 19 lines of text. All enclosed in an ornamental border.

— Wahrhafftige Abbildung und Bericht dieser 3. Comet- und Wunder-Sternen / deren sich der Erste in den Inner Oesterreichischen Landen / und benachbarten Gräntzen den 17. Januarii in diesem ... 1664 sten Jahre ... zu Rackelsburg und Tschackenthurn ... hat sehen lassen.

Woodcut, 8 in. × 11½ in., text, 5½ in. × 11½ in., *Breszlaw / bey Johann Conrad*, s.a.

— Manus Jehovæ Proteget Nos....Kurtzes / einfältiges / und Theologisch Bedencken von dem Jtzt scheinenden Cometen, welcher ohngefehr im Mittel des Monats Novembr. des 1664sten Jahrs entstanden / ... 10 ff. 4° *Jena* [1664]

Anonymous—*continued.* Astrologischer Cometen-Blick / Wie Solcher von einer hierinnen Wolgeübten Person / ... beobachtet / und ... beschrieben worden. 2 ff. 4° s.l. sed *Nürnberg*, 1664

— Etliche wenige / über den neu entstandenen schrecklichen Cometen / auffs Papier getragene Gedancken / welcher den 3. 4. 5. 12. 18. Decembris 1664. an unterschiedenen Orten gesehen worden ... 12 ff. 4° s.l., 1664

Two editions, the one with, the other without map. The disposition of the type in the pages is also different.

— Muthmaszliche Gedancken / Die Bedeutung Des jüngsten im Decembri, A. 1664. erschienenen Cometen Betreffende ... Von einer hochgelehrten Person ... verabfasset. Samt einem Anhang / Von dem obbemeldten Cometen ...

8 ff. 4° *Nürnberg*, 1665

Two editions, with different tailpieces.

— Nürnbergische Observation desz Neuen Cometens / das ist: Kurtze historische Erzehlung; desz im nechsten Monat Decembris / vergangenen 1664. Jahrs / erschienenen erschröcklichen Comet-Sterns ... von Einem Cultore der Christlichen Astrologiæ.

1 oblong chart, 36 pp. 4° *Nürnberg*, 1665

— Trawr-Gesang Vber den Denckwürdigen Cometen / so sich in verwichenen Monaten December 1664 Jahr fast in gantz Europa hat sehen lassen.

Fol. broadside, 13 in. × 8 in., *Augspurg*, 1665

Below the title is a woodcut, then, in 2 cols. 18 verses of 6 lines each, below, the printer's name, Johann Schultheiz: the whole in a woodcut border.

— Kurtzer und einfältiger Bericht / Von dem erschrecklichen Cometen / Welcher vom 20. Decembr. dess verwichenen Jahrs ... In Giessen ... gesehen wird. ... 4 ff. 4° *Giessen*, 1665

Woodcut on title.

— Vnterricht wegen Des Cometsterns / und dessen Lauffs in seinem eigenem Circul / nebenst einem Kupfferstücke. ...

1 chart, 8 ff. 4° *Hannover*, 1665

Engraved chart with the legend *Cura Philomusi Sculpsit Johan Benedict Hemeling Hannoverae Ao 1665.*

Anonymous—*cont.* Nun folget Eine auszführliche Beschreibung des erschienenen Cometen, wie solcher nicht nur im. Decembri Anno 1664. Sondern auch im Januario 1665. observiret worden. Beygefügte Erörterungen Unterschiedener ... Fragen. 48 pp. 4° *Leipzig*, 1665

Plate on title.

— Denckwürdige Buss-Gespräch über den jetzigen Cometen / welcher gesehen wird disz Auszlauffenden 1664. Jahrs / im anfang desz Christmonats.

Fol. broadside, 16 in. × 12 in., s.l. [1665]

The text is a conversation between the Stars, Angels, the Elements, the Earth and the Comet.

— Figurliche Darstellung Des erschrockenlichen Cometen / wie solcher under der Elevatione Poli von 47. gr. 30′ den 7. 8. 9. 10. 19. 22. 23. 25. und 30. tag Christmonats Styl. vet. disz 1664. jahrs gesehen worden.

Fol. broadside, 11¼ in. × 13¼ in., s.l., s.a. sed 1665.

A plate, 4 in. × 12⅓ in., showing the path of the Comet among the stars on the days mentioned from 90° to 180° R. A. Follows description of the observations in three columns.

— Vertraulich und Erbaulich Cometen-Gespräch / Sonderlich des Inhalts / Ob Cometen Gutes oder Böses bedeuten. Bey den neulich zu End des 1664sten Jahrs entstandenen Schrecklichen Cometen ... gehalten. 14 ff. 4° s.l., 1665

— Wahrer natürlicher vnd historischer Bericht / sambt eigendtlichem Abrisz. Des newen Cometen Welcher abgewichenen 1664. Jahrs in dem Christmonat vnd hernach dieses 1665. Jahrs anfangs Jenners ... ist gesehen worden. Ausz I. G. G. H. S. D. P. S. P. B.

Fol. broadside, 14½ in. × 12¾ in., plate, 4¼ in. × 11½ in., 2 columns of text, s.l. [1665].

— Systema astronomicvm cometæ Mense Decembr A° 1664. et Januar A° 1665. Salisburgi obseruati.

Fol. broadside, 14 in. × 9 in., plate, 11½ in. × 8¼ in., with circular map and engraved text, *Paulus Seel sculp. Salisb.*, s.a. sed ante 1667.

Re-engraved as plate 54 in Lubienietz *Theatrum Cometicum.*

Anonymous—*continued.* Systema astronomicum cometae Mensibus Decemb. Anno 1664. & Januar. Februar. ac April. Anno 1665. Salisburgi observati.

Fol. broadside, 13 in. × 8½ in., circular map with printed text, *Paulus Seel sculp. Salisb.*, s.a.

The preceding plate, with additions. The plate contains the paths of comet 1664 and of comet 1665 in April.

— *See* Comet 1680. Anonymous.
Comets, Div. I. Anonymous.

Bartholinus, Erasmus: De Cometis anni 1664. & 1665.-opusculum, Ex observationibus Hauniæ habitis adornatum.

2 plates, 4 ff. + 88 pp. 4° *Hafniæ*, 1665

Ex Bibliotheca Colbertina.

Beutel, Tobias: Admirabilia in aere et æthere Oder Kurtze Beschreibung der Wunderbahren Wercke Gottes...am gestirnten Himmel. Durch Veranlassung des im Decembri 1664. erschienenen / und observirten Cometen ...

16 ff. 4° *Leipzig*, 1665

— *See* Serlin, W. Cometologia.

Brutus, J. M.: *See* Serlin, W. Cometologia.

Cæsar, Johann: Nachricht Vom Cometen / so zu ausgange des 1664. Jahres erschienen.

12 ff. 4° *Hall in Sachsen* [1665]

Plate on title.

Candorin, —: Des gemälich hinten Nachkommenden Bedünken über das Himlische Ungewöhnliche Ferne Licht im Finsteren / Den vom 30. Novemb. 1664. bis den 17. Jan: 1665. erscheinenden Einen Cometen ...

8 ff. 4° *Lübeck*, 1665

Engraved diagram.

Dannewaldt, Matthias: Cometologia Oder Historischer Discurs / was ... auff Cometische Erscheinungen sich begeben / Ingleichen ... was etwa der im Decembr. dieses 1664sten Jahrs entstandene Comet...nach sich ziehen möchte...

1 plate, 16 ff. *Leipzig* [1664]

— Cometologia ... 1 plate, 18 ff. *Leipzig* [1664]

— *See* Serlin, W. Cometologia.

Dudith, Andreas: *See* Serlin, W. Cometologia.

Gadbury, J.: *See* Comets, Div. I.

Gödecke, Andreas: Christliche-Schrifftmässige Gedancken. Die bei Anschauung desz neuen Comet-Sterns / welcher im Winter und Christ-Monat dieses ablauffenden 1664. Wundersahmen Schalt-Jahrs erschienen ...

6 ff. 4° *Hamburg*, 1665

Grafe, Johann Georg: *See* Serlin, W. Cometologia.

Grasser, J. J., und Grossen, J. G.: *See* Comet 1618.

H., M. J.: Die newe Cometen Seyn gewisse Propheten.

Fol. broadside, 10¾ in. × 6¾ in., map, 4½ in. × 6 in., with text, *Ulm*, 1664.

Hahn, Johann Philipp: Kurtz eilfärtiger Bericht Von Dem im Decembr. Anno 1664. Neulichst erschienen Cometen, ...

12 ff. 4° *Dreszden* [1665]

— *See* Serlin, W. Cometologia.

Hainzel, Tobias Jacob: Judicium astrologicum, Von dem Newen Cometa / welcher den 10. Alten Cal. und 20. Newen Cal: Decembris. 1664. ... gesehen worden.

3 fol. plates, 6 ff. 4° *Augspurg* [1664]

Map on title.

— *See* Serlin, W. Cometologia.

Hautt, D.: *See* Comets, Div. I.

Herdrich, Adam: Observation Zweyer Cometen- oder Schwantzstern Gehalten Alhie in der ... Stadt Regenspurg. Anno 1664. und 65. Im Monath December / und Januarij.

Fol. broadside, 12 in. × 10¾ in., plate, 4⅛ in. × 10½ in., s.l., s.a.

— *See* Serlin, W. Cometologia.

Hevel, J.: *See* Comets, Div. I.

Höveln, Conrad von: *See* Candorin, —.

Honold, Jacob: Cometographia, oder Kurtzer Bericht von den Zweÿen iüngst erschienenen Cometen, wie dieselbe alhier zu Ulm...observirt worden. 24 pp. 4° *Ulm*, 1665

Plate on title.

Hooke, R.: *See* Comets, Div. I.

Kolhans, Johann Christoph: Cometa Generalis cum Speciali, oder Cometen-König / Welcher im 1664. und 1665. Jahr am Himmel erschienen ... sambt dem darauf im 1665. Jahr folgenden Cometen ... Map, 16 ff. 4° *Nürnberg*, s.a.

Lindelöf, Laur. Leonh.: De orbita cometae qui anno 1664 apparuit.
30 pp. 4° *Helsingforsiae*, 1854

Major, Elias: *See* Serlin, W. Cometologia.
Comets, Div. I., Dudith, A.

Marchetti, A.: *See* Comets, Div. I.

Megerlin, Peter: Astrologische Muthmassungen / Von Der Bedeuttung / Des jüngst entstandenen Cometen. 1 plate, 2 ff.+31 pp. 4° [*Bassel*] 1665

Mögling, Johann Ludwig: Kurtzer / Doch Auszführlicher / Bericht: Von dem Cometen / So zu End nächst-verwichenen 64 und anfangs jetzt lauffenden 65 Jahrs erschienen; Vnd allhie Zu Tübingen auch observirt worden.
32 pp. 4° *Tübingen*, 1665
Gives many allignments and descriptions.

Müller, F.: *See* Comets, Div. I.

Neubarth, Christoph: Astrologische Gedancken / Uber die Zween...Comet-Sterne / Deren einer / im Christ-Monat / ... 1664. Jahres / Und der ander / im Januario, desz ... 65. Jahres / erschienen und gesehen worden / ...
16 ff. 4° *Breszlaw, Anno, quo* / BInarIVs CoMeta graVes portenDIt / nostrIs terrIs pLagas. [1665].

Olearius, Gottfried: Erinnerung aus GOttes Wort bey dem neuen Comet-Stern / Im Christ-Monat des abgewichenen 1664. Jahres / ...
13 ff. 4° *Leipzig* [1665]

Placentinus, Johann: Astronomica & Astrologica Observatio Cometæ Terribilis, Mense Februario, hujus currentis Anni adhuc spectati; ... Das ist; Astronomische und Astrologische Observation Des erschrecklichen / ... Comet-Sterns / ...
2 plates, 18 ff. 4° s.l., 1665

Prætorius, Johann: IVDICIoLVM AsterIæ. Oder Der Mittägliche Strausz-Stern / So sich im Auszgange des 1664. Jahrs ... hat sehen lassen; ... 18 ff. 4° *Leipzig*, 1664

Prætorius, Johann—*continued.* *See* Serlin, W. Cometologia.

Richter, Christoph: Berichtendes Send-Schreiben Vom Cometen / So im Christmonat des 1664. Christen-Jahres ist erschienen: Darinnen derselbige Astronomice ... Betrachtet und erkläret wird.
12 ff. 4° *Leipzig, Anno, quo Seraph CVM gLaDIo VIbrante tIbI astat*, 1665.
Woodcut on title. 2 editions.

— *See* Serlin, W. Cometologia.

Richter, Johann: MerIDIonaLIs NVnCIVs Das ist Ein Wunder-Seltzamer Südischer Crinit- oder Comet-Stern / Welchen der Allmächtige... im Reste des 1664. Jahrs ... angebrandt und hernieder gehänget hat; ...
16 ff. 4° *Leipzig* [1665]
Engraved chart on title.

Ridderus, Franciscus: Reys-Discours Op het Verschijnen van de Comeet-Sterre, Die...gesien is den 15 December des Jaers 1664. en vervolgens in't Jaer 1665. 32 pp. 4° *Rotterdam*, 1665
Woodcut on title, 1 woodcut in text.

— Reise Discurs Auff Die Erscheinung des Comet-Sterns / Der vors erste mahl gesehen worden am 5. (15.) Decembr. 1664. und noch ferner im Jahre 1665. Zwischen einem Studenten / Bürger und Reisenden. ... Nun ins Hoch-Teutsche versetzt ... 44 pp. 4° *Leipzig*, 1665
Woodcut on title, 1 woodcut in text.

Rosa, Jacob: *See* Serlin, W. Cometologia.

Schneuber, Johann Matthias: Vmständliche Beschreibung Desz grossen Cometen / Welcher im Anfang desz Christmonats 1664. erschinen und bisz zu end desz Jenners 1665 gestanden.
52 pp. 4° *Straszburg* [1665]
Map on title, 1 folding chart.
2 copies, one of which has the rare map "FIGURLICHE DARSTELLUNG" [*see* Anon.] bound with it, at the end.

Schorer, Christoph: Kurtze Relation und Discurs / Von dem Cometen desz 1664. Jahrs. ...
7 ff. 4° *Ulm*, 1665
Map on title.

— Fernere Relation und Discurs / Von dem Cometen / desz 1664. Jahrs. 12 ff. 4° *Ulm*, 1665

Serlin, Wilhelm: Cometologia Oder Gründliche Beschreibung Desz neulichsthin in dem zu End lauffenden 1664. Jahr erschienenen / und bisz in das nächst drauff erfolgte 1665. Jahr gestandenen Grossen Cometens / Wie selbiger ... von gelehrten Astronomis ... betrachtet und beschrieben worden.

Engraved frontispiece, 1 plate, 4 ff. + 248 pp. 4° *Franckfurt am Mayn*, 1665.

Contains 20 separate works.

Spleiss, Stephanus: Beiläufftiger Bericht von dem jezigen Cometsternen / Wie solcher Jn disem ... 1664. Jahr / ... noch kan gesehen werden. 16 pp. 4° [*Schaffhausen*, 1664]

Map on title.

The author considers the "seething pot," *Jer.* i. ver. 13, to have been a comet.

A second edition has the title "Bejläufftiger Bericht" &c., but with the exception of a different ornament on Aij it agrees almost exactly with the other copy.

— *See* Serlin, W. Cometologia.

Strauch, Michael: De Cometis, qui Anno 1664. & 1665. in Coelo visi sunt, ...

20 ff. 4° *Wittebergæ*, 1665

Suter, Johann Caspar: Warhafftige Beobachtung Desz anjez Erscheinenden Comet-Sterns. Dises 1664 Jahrs.

Fol. broadside, 12 in. × 7 in., plate, 3 in. × 5 in., text, 30 lines, *Schaffhausen*, 1665.

Shows places of Comets 1618 and 1664, in *Serpens*.

Trew, Abdias: Gründliche ... Beschreibung des jüngst zu End des Jahrs 1664 und im Anfang 1665 erschienenen Cometen.

2 plates, 4 ff. + 64 pp. 4° *Nürnberg*, 1665

Voigt, Johann Henrich: Stadischer vermehrter Cometen Spiegel Von den beyden Cometen Auszgangs 1664. und Anfangs 1665. Jahres ...

8 ff. 4° *Hamburg* [1665]

Woodcut on title.

— Observation und Bericht Von dem andern Cometen oder des Cometen Anderer Erscheinung. 1665. 4 ff. 4° *Hamburg* [1665]

Woodcut on title.

— *See* Serlin, W. Cometologia.

Wagner, Elias: Zwiefaches Wunder GOttes Der beyden grossen Comet-Sternen am Himmel ...

14 ff. 4° *Breszlaw* [1665]

Weigel, Erhard: Fortsetzung des Himmels-Spiegels / Darinnen ... Der zu Ende des 1664. Jahres entstandene / ... Grosse Comet ausführlich beschrieben / und zugleich / was vormahls von dem Anno 1618. erschienenen observirt / ... vorgestellet wird.

6 ff. + 127 pp. 4° *Jena*, 1665

1 engraved frontispiece.

1 engraving printed on title.

1 woodcut of 14 figs.

1 small woodcut in text on p. 84.

One engraving has the figures of the constellations reversed.

A second copy is without frontispiece and has the engraving pasted on the title.

— Fortsetzung des Hiñels Spiegels / ... Sampt der Vollstreckung des Anhangs vom Lauff des Cometen in diesem 1665sten Jahr.

Engraved frontispiece, 3 ff. 4° *Jehna*, 1665

— Fortsetzung des Hiñels Spiegels / Darinnen ... Der zu Ende des 1664sten Jahres entstandene / ... Grosse Comet ausführlich beschrieben / und zugleich / was vormahls von dem Anno 1618. erschienenen observirt, ... vorgestellet wird / Sampt der Vollstreckung des Anhangs vom Lauff des Cometen in diesem 1665sten Jahr.

9 ff. + 127 pp. *Jena*, 1681

Large woodcut of 14 figs. Small woodcut in text.

— *See* Serlin, W. Cometologia.

Welper, Eberhard: *See* Serlin, W. Cometologia.

Zimmerman, Martin: Anno 1664 den 18 Decembris S.N. Ist dieser ungewohnliche Comet oder Schwaiff Stern ... inn Augspurg ... gesehen worden.

Broadside, 7¼ in. × 7½ in., plate, 5 in. × 6¾ in. [*Augspurg*] *Martin Zimerman exc.* [1665].

Comet 1665.

Anonymous: Beschreibung / Desz sehr nachdencklichen Comet-Sterns / welcher / ... / hat sich bald diser newe. Stern herfür gethan / vnd sonderlich zu Augspurg sehen lassen / auff den 8. Tag Aprilis, ... 1665.

Fol. broadside, 20¼ in. × 10 in., plate, 5¼ in. × 9 in., 2 cols. text, *Augspurg*, s.a.

Anonymous—*cont.* Cometa Orientalis Caudatus in Pegaso obseruatus in Sig. ♓ et ♈ Augustæ Vinde. Aº. 1665. a die 8 Aprilis usq; ad 17. eiusdem stylo nouo ...

Sheet, 8 in. × 12 in., chart and text, 5¾ in. × 8 in., s.l., s.a.

Latin and German.

— *See* Comet 1664. Anonymous.
Comet 1680. Anonymous.
Comets, Div. I. Anonymous.

Bachmeyer, Wolffgang: Anhang / Oder Verzeichnus etlicher Astronomischer Observationum, desz letzten Anno 1665. im Früling erschienenen Cometen / ...

Fol. broadside, 12 in. × 8 in., s.l. [1666]

It contains the author's observations of the Comet made on the nights of March 29, and April 1, 2, 3, 4 and 5, 1665.

Bartholinus, E.: *See* Comet 1664.

Beutel, Tobias: Dreyfache Zugabe Der Admirabilium in aere et æthere Oder Wunderbaren Wercke ... So auff ... Cometen, sich noch ferner begeben / An Dreyen Soñen und Regenbogen. An erschrecklichen Feuer-Zeichen. Und an einen Neuen Cometen.

Engraved frontispiece, 20 ff. 4º *Leipzig*, 1665

Gadbury, J.: *See* Comets, Div. I.

Hevel, J.: *See* Comets, Div. I.

Honold, J.: *See* Comet 1664.

Hooke, R.: *See* Comets, Div. I.

Kolhans, J. C.: *See* Comet 1664.

Nottnagel, Christoph: Appendix Vom Neuen Cometen Vnd dessen Vermuthlichen Bedeutung. 8 ff. 4º *Wittenberg*, 1665

Woodcut on title.

Richter, Christoph: Berichtendes Send-Schreiben Von dem Oster-neu / Oder dem Andern Cometen / So am H. Oster-tage / ... dieses 1665. Christen-Jahrs im Tische vornemlich ist erschienen: ...

1 plate, 11 ff. 4º *Leipzig, Anno qVo DVo CoMetæ fVLgent: & DVo seraphIM In CœLIs VIsI.* [1665].

Weigel, Erhard: Speculum Terræ, Das ist / Erd-Spiegel / Darinnen der Erd Creisz Nach seinen Eigenschafften an Land und Wasser: ... abgebildet / und zugleich der helleuchtende neue Comet welcher im Mertz und April des 1665sten Jahrs erschienen / ausführlich beschrieben wird.

1 plate, 4 small woodcuts, 3 ff. + 200 pp. 4º *Jehna*, 1665.

Comet 1668.

Anonymous: Estratto delle osservazioni fatte sulla cometa del 1668 da alcuni Padri della Compagnia di Gesù. Pubblicato dagli Astronomi del Coll. rom. ...

Chart, 8¼ in. × 12 in. 15 pp. 8º *Roma*, 1843

Klinkerfues, W.: *See* Comet 371 B.C.

Comet 1672.

Anonymous: *See* Comet 1680. Anonymous.

D[oerfel], G[eorg] S[am.]: Warhafftiger Bericht Von dem Cometen / Welcher im Mertzen dieses 1672. Jahrs erschienen: Dessen Lauff / ... in Plauen observirt worden ... 4 ff. 4º s.l., 1672

Map on title.

Eliander, Joh. Bapt.: Cometische Hohe Himmels-Ruthe / So Der Allmächtige Gott in Frühling dieses weit-aussehenden 1672sten Jahrs Nord-westen-werts / zur Abendzeit ... vorgestellet.

1 plate, 7 ff. 4º *Leipzig*, 1672

Comet 1677.

Anonymous: *See* Comet 1680. Anonymous.

Hoek, Martinus: * Sur les Comètes de 1677 et 1683; 1860 III, 1863 I et 1863 VI.

15 pp. 8º *La Haye*, 1874

Honold, Jacob: Sidereus Dei Clarigator, Das ist / Kurtzer Bericht / Von dem Neuen Cometen / welcher in der Oesterlichen Zeit dieses 1677. Jahrs erschienen / ... Und dann Von der Cometen Bedeutung insgemein ...

32 pp. 4º *Ulm*, 1677

Map on title. Contains many references to works on comets. There are 4 apparently good observations, with full details, the earliest of which is 13 days prior to any used by Halley.

Hooke, R.: *See* Comets, Div. I.

Ridderus, Franciscus: Reys-Discours Op het verschijnen van de Comeet-Sterre, Die voor weynigh dagen d'eerste mael is gesien ...

31 pp. 4° *Amsterdam*, 1677

Woodcut on title.

V., J. H.: *See* Comets, Div. I.

COMET 1680.

Anonymous: Eigendlicher Abrisz und Beschreibung des erschröcklichen Cometen / welcher des zu End lauffenden Jahrs 1680 / ... in dieser ... Stadt Regenspurg gesehen und beobachtet worden.

Fol. broadside, 15⅜ in. × 11¾ in., map, 5¼ in. × 4¾ in., *Regenspurg*, 1680.

A column of text at each side of plate, descriptive of paths of comets in years 1652-3, 1661, 1664, 1665, 1672, 1677.

Below the plate 2 columns of text, giving an account of Comet 1680.

— Ein Gespräch zwischen Einem Naturkündiger / Politico und Geistlichen von dem neulich gesehenen ... Comet-Stern / ... aufgesetzt Von einem Liebhaber der Gestirne.

31 pp. 4° *Nürnberg*, 1681

Woodcut on title.

— Dunckeler Abrisz / Und Kurtze Beschreibung / Des fast niemals erhörten grossen neuen Cometens / Welcher erschienen im Christmonat / des 1680 Jahres. Fol. broadside, s.l., 1681

Woodcut of Comet. 2 columns of text, 34 and 35 lines.

— Demonstratio de Parallaxi Cometae Observati Viennæ sub finem Anni 1680. & Initium Anni 1681. deducta ex principiis geometricis.

2 plates, 14 ff. 4° *Viennæ Austriæ*, s.a.

— Eigentlicher abrisz desz Schröcklichen Comet-sterns, welcher sich den $\frac{16}{26}$ December. desz 1680. Jahrs von neuen widerumb sehen lassen...

Sheet, 12¼ in. × 7½ in., plate, 9 in. × 6¼ in., *Augspurg*, s.a.

— Comet welcher Anno 1680 und 1681 beobachtet worden. Chart, 8⅜ in. × 12⅝ in., s.l., s.a.

Anonymous—*continued.* Den 4 December 1680. hat in Rom eine Hänne, ein Eü geleget, in welchen ein Cometstern und andere Zeichen gesehen worden wie beü kommende Figur ausz weisset.

Abrisz desz Kometen wie er in dem November zu Rom Früh morgens ist Zu sehen gewesen.

Plate, 7⅛ in. × 5⅝ in., s.l., s.a.

This plate belongs to Conrad Dietrich's *Kurtzes Gespräch von den Cometen.*

— Vorstellung desz Erschrecklichen Cometen so im Monat December desz 1680.ten Jahrs zum erstenmal in dieser Auszsicht erschienen; ...

Plate, 12⅛ in. × 6⅝ in., s.l., s.a.

— *See* Comets, Div. I. Anonymous.

Anhorn, Bartholomæus: Wachende Rut am Himmel / und Zitter der Pfeileren der Erden: oder Wolgemeinte erinnerung ... Wegen des ... Grossen Cometen: und Die Grundveste der Erden erschüttenden Erdbidems / ...

8 ff. + 115 + 5 pp. 8° *Zürich*, 1681

Bornmeister, Simon: Christlich-vernünfftige Cometen-Betrachtung / aus Gelegenheit desz im Monat December 1680-erschienenen grossen Cometen; ... zum andernmahl / verbessert heraus gegeben. 4 ff. 4° *Nürnberg*, 1681

Büthner, Friedrich: Astronomische und Astrologische Beschreibung und Betrachtung / Seltzamer Begebenheiten Des Cometen / ... Welche zu Ende des Decembers verlauffenen ... Jahres ... sich præsentiret. ...

1 plate, 24 pp. 4° *Dantzig*, 1681

[Cardilucius, —]: *See* Comets, Div. I.

Clark, Gilbert: Astronomica specimena ad Observationes Planetarum Faciendas, & Horologiorum Constructionem.

1 plate, 24 pp. 8° *Londini*, 1682

There are 5 pp. of *Observatio nuperi Cometæ, Langoportæ*, $168\frac{0}{1}$."

[Dietrich, Conrad]: Kurtzes Gespräch von Den Cometen / oder Strobel-Sternen / Durch Veranlassung Des am Ende dieses 1680sten Jahrs erschienenen ... Cometens / ... und saīnt Herr D. Cunrad Dietrichs sel. Historischen Bericht... an Tag gegeben.

3 plates, 16 ff. 4° *Leipzig* [1680]

Euler, L.: *See* Comets, Div. I.

Hagen, Joachim Heinrich: Bemerkung / der jüngsten grossen Comet-Erscheinungen / ...
4 ff.+79 pp. 4° *Bayreut*, 1681
Map on title.

Harry, Benjamin: MS. copy of the Log of the *Shipp Berkeley Castle*, from November 18, 1680 to February 7, 1681, kept by the Master, Benjamin Harry. 7 ff. fol.
In this interesting log-book, a copy of which is in the British Museum, there are many observations of the Great Comet, some of which were used by Newton in the *Principia*.

Herrliberger, Johann: Kurze und grundtliche Beschreibung / Desz um den 16. Tag Wintermonat / desz 1680. Jahrs / ... beobachteten und bis in den Jenner des von Gott gegebnen 1681. Jahrs am Himmel ... geschwebten sehr grossen und erschrockenlichen Wunder Cometen. ...
4 ff. 4° *Zürich*, 1681
Woodcut on title.

Honold, Jacob: Monitor hominum novissimus. Das ist: Kurtzer Bericht Von dem Ungewohnlich grossen Cometen / welcher in verwichner Winters-Zeit erschienen / ...
1 plate, 29 + 3 pp. 4° *Ulm*, 1681

Kirch, Gottfried: Neue Himmels-Zeitung / Darinnen sonderlich ... von den zweyen neuen grossen im 1680. Jahr erschienenen Cometen / Deren Gestalt / ... Bericht zu finden: ...
5 plates, 4 ff.+144 pp. 4° *Nürnberg*, 1681

Lani, Georg: Hermathena Sive Orationes panegyricæ Diversi Argumenti. Utpote 1. de Cometa nuper viso ...
1 plate, 20+313+19 pp. 8° *Lipsiæ*, 1682

Lips, Friedrich: Ohnvorgreiffliche Gedancken / Uber den im Monat November und December Anno 1680, erschienenen Cometen.
4 ff. 4° s.l., 1680
Woodcut on title.

— Cometo-graphia franco-orientalis, ad annum 1680. mense Decembr. & 1681. mense Januar. Die Fränckische Cometen-Vorstellung / so sich im Monath Decemb. 1680. und 1681. im Jenner ... ereignet; ... Neben einem Discurs von dem An. 1680. d. 2. Decembr in Rom gelegten Ey / worauf der Comet solle gebildet gewesen seyn. 1 chart, 12 ff. 4° *Rotenburg*, 1681

Madeweis, Friedrich: Nigellæ Cadmi Filiæ de Sydere Crinito, A. II. CIↃ IↃC LXXX. Mense Novemb. & seq. observato....Hiebey die Wieder-Erscheinung desselben Cometen im Monat December ... [Continuatio Observationum Cometae Anno M.DC.LXXXI.]
1 chart, 4+16+4 ff. 4° *Berolini*, 1681

— Die Wieder-Erscheinung Der ungewöhnlich-grossen Stern-Ruthe / verstehe Des Neuen Cometen, im Monat December / des 1680sten / und folgends im Januario des 1681sten Jahres... [Continuatio Observationum Cometæ, Anno M.DC.LXXXI.]
1 plate, 16+4 ff. 4° *Berolini*, 1681
The *Wieder-Erscheinung* and *Continuatio* are the second and third portions of the preceding work. Each part was printed separately.

Marchetti, A.: *See* Comets, Div. I.

Mayer, Johann: Vorstellung Desz jüngst-erschienenen Cometen / Wie derselbe / vom 16. Novembris, Anno 1680. bisz auf den 7. Februarii, Anno 1681. ... den halb sichtbaren Himmel ... durchwandert. ... Beschreibung / desz ... Erdbruchs bey Blaubeyren.
1 chart, 1 woodcut, 56 pp. 4° *Ulm*, 1681

Merrifield, J.: *See* Comets, Div. I.

N.[ispen], M. V.: *See* Comets, Div. I.

N., T.: Eigentlicher Bericht / welcher Gestalten der nachdenckliche / ... dises ... 1680sten Jahrs / ... Comet zu Marckt-Wailtingen ... observiret worden.
Fol. broadside, 16½ in. × 13 in., plate, 6 in. × 13 in., *Augspurg*, s.a.
The comet is drawn with a perfectly straight tail.

Neutard, Peter: Kurtze Delineation und Beschreibung Desz Grossen Cometen / so $\frac{16}{26}$ Decembris zum erstenmal observirt worden.
1 plate, 2 ff. 4° s.l., s.a.

Praun, M.: *See* Comets, Div. I.

Rocha, Diego Andres: Copia de Carta, qve el avtor escrivio a sv Hijo ... sobre el Cometa del año de 1680. 8 ff. 4° [*Lima*, 1681]
At the end of *Tratado vnico ... del origen de los Indios ... del Piru* ... 6+84 ff. 4° *Lima*, 1681.

Rudrauf, Kilian: Christliche Cometen-Predigt Uber den grossen Greszlichen Cometen / Der vom 16. Decembr....1680. bisz lang in den Januarium dieses Jahrs ... gesehen worden / ...
20 pp. 4° *Franckfurt*, 1681

Sandrart, J. J. de: Des neuen Wunder grossen Comet Sterns ... eigner Lauff Sambt der Gegend und beschaffenheit des observatory ... vor augen gestelt.
Plate, 9½ in. × 10½ in., [*Nürnberg*] s.a.
Contains 7 rough observations of the comet's place.

Schultz, Gottfried: Astronomisches Judicium, Uber gegenwertigen Cometen, ausz Verordnung und Befelch eines Wohllöbl. Magistrats zu Breszlaw; verfasset.
Fol. broadside, 16 in. × 11¾ in., chart, 5½ in. × 11½ in., *Regenspurg*, 1681.

Strauch, Ægidius: Von der Weisen aus Morgenlande Alten / und dem jetzigen Neuen Wunder-Sternen / ... 1 f.+28 pp. 4° *Dantzig* [1681]

Sturm, Johann Christoph: Cometa Nvpervs, An, et Qvæ, Mala Terris Aut illaturus ipsemet influxu Physico, aut aliunde justo Dei Judicio inferenda portendere saltem & praesignificare, credendus sit?... 32 pp. 4° *Altdorfi*, 1681

Taust, Johann Gottlieb: Der Von Abend gegen Morgen lauffende Unglücks-Prophete Oder Nach gemeiner Art benahmte Comet oder Schwantz-Stern / welcher abermahls dieses 1680sten Jahres von 6 November an / bisz auf den 24 hujus leuchtend sich hat sehen lassen/...
28 ff. 4° *Hall*, 1681
Woodcut on title.

— Cometa Redivivus, Das ist / Der ... Aufs neue sich unserm Gesichte praesentirende Unglücks Prophete Oder Der nach gemeiner Art genannte Comet und Schwantz Stern / welcher ... nachdem er unter der Sonnen Strahlen 3. Wochen verdecket gewesen / ... nach der Sonnen Untergang sich sehen lässet.... 20 ff. 4° *Hall*, 1681

Voigt, Johann Henrich: Cometa, Matutinus & Vespertinus, Der / ... der Gottlosen Welt zum Schrecken / am Himmel strahlende Comet- oder Schwantz-Stern / Anno 1680. und 1681.
1 chart, 16 ff. 4° *Hamburg* [1681]
There is also a description of the comet of 1577.

Voigt, Johann Henrich—*cont.* Cometa Matutinus & Vespertinus, Der / ... am Himmel strahlende Comet- oder Schwantz-Stern / anno 1680. und 1681.
1 chart, 12 ff. 4° *Dantzig / Nach der Hamburgschen Edition. Druckts David Friderich Rhete.* [1681.]

Vulpius, Johann: D.O.M.S. ΣΗΜΕΙΟΛΟΓΙΑ Oder Historischer Discurs, Was hiebevor auff solche Zeichen und Wunder / dergleichen biszhero von Anno 1680. bisz 1681. nebenst den Cometen / ... sich zugetragen / erfolget und geschehen ist / ... Darbey auch der noch rückständige Lauff des ... Cometen ... berühret wird. 10 ff. 4° *Hall in Sachsen*, 1681

Wagner, Johann Christoph: Cometa disparens, Das ist: Gründlicher Bericht von dem fernern Lauff Desz Komet-Sterns / Bisz zu dessen völliger Verlöschung ... Deme mit angefügt wird Was von der...Zusammen-Kunfft...Saturni und Jovis. Item der ... 1684 erscheinenden Sonnen-Finsternusz zu halten.
4 woodcuts, 14 ff. 4° *Augspurg*, 1681
Woodcut on title.

— *See* Comets, Div. I.

Warner, Germanus: Neue Astrologisch-Theologische Cometen-Practic / Auff Disz alte zu End lauffende 1680. Jahr gestellt / ...
5 ff. 4° [*Stuttgart*, 1681]
Printed as a continuation of J. J. Zimmermann's *Cometo-Scopia.*

Weigel, Erhard: Himmels-Zeiger Der Bedeutung Aller Dinge dieser Welt/...Sampt dessen Fort-Setzung ... Auff Veranlassung Des Ungemeinen Cometen im 1680 und 1681sten Jahre. Anhang, Vom Grund der Astrologie / Aus der Bedeutung des Cometen Anno 1665. ...
1 chart, 2 woodcuts, 6 ff. + 64 pp. + 8 ff. 4° *Jehna*, 1681.

— Himmels-Zeiger Der Bedeutung Bey Erscheinung Des ungemeinen Cometen Anno 1680. von 6. Novembr. an / beobachtet. Anhang, Vom Grund der Astrologie aus der Bedeutung des Cometen Anno 1665. ...
1 chart, 1 woodcut, 2 ff. + 80 pp. + 8 ff. 4° *Jehna*, 1681.
Woodcut on title.
Another edition has 3 woodcuts, and a tail-piece on p. 56.

Weigel, Erhard—*cont.* Fortsetzung des Himmels-Zeigers Der Bedeutung. Bey Vollbrachten Lauff Des ungemeinen Cometen Im Monat Februario 1681. Sampt einem Muster / Wornach ein gottseelig Nativität zu stellen. [2 Theile.]

1 woodcut, 6 ff. + 96 + 2 + 24 pp. 4° *Jehna*, 1681

Two impressions. The Copy described has *Erhardi Weigelii, P.P.* at the head of the title, and a dedication of 4 folios to *Friederich, Marck-Graffen zu Brandenburg*, features wanting in the other copy.

Whiston, William: The Cause of the Deluge Demonstrated: Wherein it is proved that the... Comet of A.D. 1680. came by the Earth at the Deluge, and was the Occasion of it. The Second Edition with Additions.

14 pp. 8° *London*, 1714

Zimmermann, Johann Jacob: Cometo-Scopia oder Himmel-gemäser Bericht / ... desz mitten im Novembri 1680.sten Jahrs entstandenen / und bisz in den Anfang Februarij 1681. erschienenen grossen Wunder-Sterns und Cometens. Nächst einem auszführlichen Catalogo aller Cometen / so innerhalb 2160. Jahren gesehen worden / ... [Pars prima.]

4 plates, 9 ff. + 20 pp. + 1 f. 4° *Stuttgart, Anno Christi aa + 2a + 1. CVIVS Vera raDIX a, sI CaLCVLo eXtraXerIs, eqVabItVr eXILIo IsraelItICo In Deserto.* [1681.]

Woodcut on title.

— Cometo-Scopiæ Pars Altera. Oder Fortsetzung Gnädigst anbefohlenen Bedenckens / Uber den neulichen Cometen / ...

105 pp. 4° [*Stuttgart*, 1681]

COMET 1683.

Hoek, M.: *See* Comet 1677.

Honold, Jacob: Kurtzer / doch umständlicher Bericht Von dem Cometen / Welcher im verwichnen Julio ... und Augusto dieses 1683. Jahrs gegen Mitternacht gesehen worden.

1 chart, 8 pp. 4° *Ulm* [1683]

The chart is the same as that in Honold's tracts on Halley's Comet in 1682 with the needful additions.

Kirch, Gottfried: Cometa Anni 1683, à die 13. (23) Julii, ad 22. Aug. (1. Sept.) Lipsiæ observatus. 2 pp. 4° *Lipsiae* [1683]

In *Annus IV. Ephemeridum motuum coelestium ad Annum* ... 1684. ...

Vulpius, Johann: Kurtz-einfältiger Bericht von Dem in Julio und Augusto Anno 1683. erschienenen und über 5. Wochen gewährten Cometen / ... Beschreibung des jüngst-erschienenen Feuer-Zeichens / So den 12. Augusti ... gesehen worden ist ... 4 ff. 4° *Leipzig* [1683]

Weigel, Erhard: Von der Würckung Des Gemüths / die man das Rechnen heist. Auf Veranlassung Des neuen Cometen / und groszen Feuer-Ballns / Ann. 1683. entworffen. Unmasz-geblicher Entwurff der... Unterweisung... durch das Rechnen. 1 plate, 64 + 8 pp. 4° *Jena*, 1684

COMET 1684.

Neugebauer, Paul: Ueber den Cometen des Jahres 1684. [Inaugural Dissertation.]

2 plates, 40 pp. 8° *Breslau*, 1874

COMET 1689.

Goüye, Thomas: Observations physiques et mathématiques, ... Envoyées de Siam ... avec ... quelques Notes du P. Goüye ...

3 plates, 252 pp. + 2 ff. 4° [*Amsterdam*, 1735]

Reprinted from the Paris *Histoire de l'Academie, tome VII.* with *Lettres de M. Auzout*, but paged separately.

For the observations of the comet by Richaud, de Beze and Comille, *see* pp. 202-205.

COMET 1723.

Spörer, Gustav Friedrich Wilhelm: De Cometa qui anno 1723 apparuit. [Dissertatio inauguralis.] 4 ff. + 34 pp. + "vita" 4° *Berlin*, 1843

COMET 1733.

C[opeland,] R[alph]: * The Comet of 1733.

2 pp. 4° *Dublin*, 1881

Oudemans, J. A. C.: * The Comet of 1733. Reply to the remarks of Dr. Copeland on my calculation of the place of the Comet of 1733.

2 pp. 4° *Dublin*, 1881

COMET 1737, I.

Whiston, William: The astronomical year; or, an account of the many remarkable Celestial Phænomena of the Great Year 1736. Particularly of the Late Comet, which was foretold by Sir Isaac Newton ...

26 pp. + 3 ff. 8° *London*, 1737

COMET 1742, I.

Maupertuis, Pierre Louis Moreau de: Lettre sur la Comète (1742).
1 plate, 51 pp. 12° *Amsterdam*, 1744
In his *Ouvrages divers.* Also in *Les Oeuvres de Mr. de Maupertuis.* 4° *Dresde*, 1752.

Wiedeburg, Johann Bernhard: Astronomische Beschreibung und Nachricht von dem Cometen Welcher im Monath Mertz dieses ietztlauffenden Jahres 1742. erschienen.
1 plate, 26 pp. 4° *Jena* [1742]

COMET 1744.

Anonymous: DA anjetzo so viele den Cometen mit ihren Anschauen beehret haben, ...
1 plate, 6 ff. 4° *Augspurg*, 1744
Has no regular titlepage. In this tract is a poem of 192 lines addressed to Whiston.

— Astronomische Beschreibung und Nachricht von dem Cometen, Welcher sich dieses...Jahres 1744. ... zeiget ...
1 woodcut, 6 ff. 4° *Dresden*, 1744

— Unvorgreifliche Unterredungen zwischen einem Astronomo und philosophischen Bauer von der Cometen Würckung und Bedeutung. (Die Continuation folget.)
1 plate, 14 pp. 4° *Dreszden*, 1744

— Der Vorsichtige Himmels-Beschauer und Ausleger des Comet-Sterns, welcher sich von Anfang dieses Jahrs an der Sternen-Bühne ... sehen lassen ...
1 plate, 76 pp. 8° *Franckfurt und Leipzig*, 1744

— Gottes Gedancken / Nicht wie die Gedancken Joh. Bernh. Wideburgs und seiner Gegner / in Astronomischen Bedencken ... über den vom Decembr. 1743 bis hieher 1744 gesehenen Cometen. 24 pp. 4° s.l., 1744

— Vernünftige und Schriftmäszige Gedanken von Cometen / Bei Gelegenheit des gegenwärtigen in diesem 1744. Jahr sichtbaren Cometens / ... von einem den Aberglauben hassenden ... Freund. 1 plate, 24 pp. 4° s.l., 1744

Bredichin, Th.: *Sur la queue du premier type de la comète de 1744.
1 plate, 7 pp. 4° *Moscou*, 1884

Bredichin, Th.—*continued.* *Sur les anomalies apparentes dans la structure de la grande comète de 1744.
1 plate, 15 pp. 8° *Moskva*, 1884

B[amfield], S[amuel]: Observations made at Cambridge on the late famous Comet, from Decr. 23, 1743, to Feby. 18, 1744.
1 table, 2+1 pp. 4° *London*, 1746-47
In *Miscellanea curiosa mathematica*—Nos. v. and vi.

Chéseaux, Jean Philippe: Traité de la Comète qui a paru en Decembre 1743. & en Janvier, Février et Mars 1744.
6 plates, 308 pp. 8° *Lausanne et Genève*, 1744
Chasles 3330.

Dreyer, J. L. E.: *On the Multiple Tail of the Great Comet of 1744. Further note on the Comet of 1744. 1 plate, 10 pp. 4° *Dublin*, 1883

Heinsius, Gottfried: Beschreibung des im Anfang des Jahrs 1744 erschienenen Cometen nebst einigen darüber angestellten Betrachtungen.
4 plates, 105 pp. 4° *St. Petersburg*, 1744
The first plate contains fine designs of the coma and bright sector. On page 18 is an account of the comet's multiple tail which was mistaken for an aurora by Heinsius on Feb. 25 O.S. or Mar. 7 N.S.

Lycosthenes, C.: *See* Comets, Div. I.

Wiedeburg, Johann Bernhardt: Astronomisches Bedenken Ueber die Frage Ob der...Untergang der Welt ... Durch Annäherung eines Cometen zur Erden werde befördert werden ... Nebst einer ... Nachricht von dem Cometen welcher am Ende des 1743sten ... Jahres erschienen.
1 plate, 11 ff.+200 pp. 8° *Jena*, 1744
Two editions.

— Verhandeling der Comeeten, of natuurkundige Bedenkingen ... Hier agter is bygevoegt een Omstandig Bericht van de Comeet, die in't Jaar 1743 en 1744. zig aan den Hemel vertoont heeft ... 14 ff.+216 pp. 8° *Amsterdam*, 1759

Winnecke, August: *Über den vielfachen Schweif des grossen Cometen von 1744.
1 plate, 3 ff. 4° *St. Petersburg*, 1863

COMET 1746.

Kindermann, Eberhard Christian: Astronomische Beschreibung und Nachricht von dem Cometen 1746. Und denen noch kommenden, welche in denen innen besagten Jahren erscheinen werden. 1 plate, 14 pp. 4° *Dreszden*, 1746

On the plate is also a representation of the planet Mars, enveloped in an atmosphere, attended by a satellite in a small orbit, also with an atmosphere. Round the orbit is the legend *Via Luna Martis entdecket vom Autore den 10. Iul. 1744.*

COMET 1769.

Anonymous: *See* Comets, Div. I.

Bischof, Johann Friedrich: Sammlung der Nachrichten von dem den 26sten August ... 1769 ... erschienenen groszen Cometen / nebst einigen vorangesetzten Betrachtungen. 26 pp. 4° *Stettin* [1769]

Euler, Leonhard: *See* Lexell, A. J.

Lexell, Anders Johann: Recherches et calculs sur la vraie orbite elliptique de la Comete de l'An 1769. et son tems periodique, executées sous la direction de Mr. Leonhard Euler, par les soins de Mr. Lexell. 159 pp. 4° *St. Petersbourg*, 1770

COMET 1770, I.

Krafft, W. L.: Observatio Cometæ anni 1770. habita Kameneczi in Polonia. 4 pp. 4° *Petropoli*, 1770

In *Collectio omnium observationum ... occasione Transitus Veneris ...* 1770, vol. I.

Lexell, Anders Johann: * Disquisitio de tempore periodico Cometæ anno 1770 observati. 18 pp. 4° *London*, 1779

— *See* Comets, Div. I.

Messier, Charles: Addition Aux Recherches de M. Lexell, sur le retour périodique de la Comète de 1770, avec les Élémens de la Comète de 1773, qu'il a calculée dans l'ellipse. 8 pp. 4° *Paris*, 1780

COMET 1770, II.

Clausen, Thomas: * Bestimmung der Bahn des Cometen von 1770. 12 ff. 4° *Altona*, 1842

COMET 1771.

Beebe, William: * The Comet of 1771: Investigation of the Orbit. 18 pp. 8° *New Haven*, 1880

Kreutz, Heinrich: * Über die Bahn des Kometen von 1771. 34 pp. 8° *Wien*, 1882

Messier, Charles: Mémoire contenant les observations de la XIII.e comète Observée à...l'observatoire de la Marine, pendant ... 1771. 2 charts, 31 pp. 4° *Paris*, 1780

COMET 1773.

Messier, C.: *See* Comet 1770, I.

COMET 1780, I.

Messier, Charles: * Mémoire contenant les observations de la Comète Observée ... Depuis le 27 Octobre jusqu'au 29 Novembre 1780. 1 chart, 27 pp. 4° *Paris*, 1784

COMET 1781, I.

Messier, Charles: * Mémoire contenant les observations des Deux Comètes de 1781, ... 1 chart, 20 pp. 4° *Paris*, 1784

COMET 1781, II.

Messier, C.: *See* Comet 1781, I.

COMET 1784, I.

Messier, Charles: * Mémoire contenant les observations de la première Comète de 1784, Observée à Paris, ... & de la seconde Comète observée à Malte. 1 chart, 15 pp. 4° *Paris*, 1787

COMET 1784, II.

Messier, C.: *See* Comet 1784, I.

COMET 1785, II.

Krüger, Adalbert: Bestimmung der Bahn des Kometen 1785, II. 25 pp. 4° [*Helsingfors*, 1868]

COMET 1786, II.

Herschel, Caroline Lucretia: * An account of a new Comet. 1 plate, 4 pp. 4° *London*, 1787

Herschel, Frederick William: * Remarks on the New Comet. 4 pp. 4° *London*, 1787

Messier, Charles: * Mémoire contenant les observations de la seconde Comète de 1786, ...
1 chart, 23 pp. 4° *Paris*, 1788

COMET 1793, II.

Herschel, Caroline Lucretia: * Account of the Discovery of a new Comet.
6 pp. 4° *London*, 1795

COMET 1801, I.

Doberck, William: Bahnbestimmung der Cometen. I 1801, III 1840 und II 1869. [Inaugural Dissertation.]
21 pp. + "vita" 8° *Kopenhagen*, 1873

COMET 1806, II.

Herschel, Frederick William: * Observations on the nature of the new celestial body discovered by Dr. Olbers, and of the Comet which was expected ... last January ...
7 pp. 4° *London*, 1807

COMET 1807.

Bessel, Friedrich Wilhelm: Untersuchungen über die scheinbare und wahre Bahn des im Jahre 1807 erschienenen grossen Kometen.
vi. + 82 pp. 4° *Königsberg*, 1810

Bugge, Thomas: * Betragtninger over Cometer i almindelighed og observationer paa Cometen i October, November og December 1807.
3 plates, 78 pp. 4° [*Kjøbenhavn*] 1808

Schröter, Johann Hieronymus: Beobachtungen des grossen Cometen von 1807; sammt einem Nachtrage zu den Aphroditographischen Fragmenten.
2 plates, 188 + 92 pp. 8° *Göttingen*, 1811

Voigt, J. H.: *See* Comets, Div. I.

COMET 1811, I.

Argelander, Friedrich Wilhelm August: Untersuchungen über die Bahn des grossen Cometen vom Jahre 1811.
1 plate, 84 pp. 4° *Königsberg*, 1823

Bredichin, Th.: * Sur la Grande comète de 1811.
1 plate, 12 pp. 8° *Moskva*, 1884

Gelpke, A. H. C.: *See* Comets, Div. I.

Herschel, Frederick William: * Observations of a Comet, with Remarks on the Construction of its different Parts.
1 plate, 29 pp. 4° *London*, 1812

Huth, Johann Sigismund Gottfried: Die... Rede und Vorlesung über den grossen Kometen von 1811. 55 pp. 8° *Dorpat*, 1812

Piazzi, Giuseppe: Della Cometa del 1811. Osservata nella specola di Palermo Dai 9. Settembre ai 11. Gennaro 1812.
45 + 5 pp. 8° *Palermo* [1812]

Schröter, Johann Hieronymus: Beobachtungen und Bemerkungen über den grossen Cometen von 1811.
4 plates, xxii. + 304 pp. 8° *Göttingen*, 1815

Ure, Andrew: [Two Letters to the Editor of the *General Chronicle*, on the Comet of 1811.]
3 pp. 8° *London*, 1811
In the second letter is a set of elèments. Appended are two anonymous letters on the comet of 1811, with an engraving.

Walker, W.: An Epitome of Astronomy, with The New Discovered Planets, and the late Comet, as illustrated by the Eidouranion; ... The twenty-fifth edition.
40 pp. 8° *London*, 1813
Figure on half-title.

COMET 1811, II.

Herschel, Frederick William: * Observations of a second Comet, with Remarks on its Construction. 9 pp. 4° *London*, 1812

COMET 1813, II.

Gauss, Carl Friedrich: * Observationes cometae secundi a. 1813 in observatorio gottingensi factae adjectis nonnullis adnotationibus circa calculum orbitarum parabolicum.
11 pp. 4° *Göttingen*, 1813

COMET 1819, II.

Brinkley, J.: *See* Comets, Div. I.

Gelpke, A. H. C.: *See* Comets, Div. I.

COMET 1821.

Brinkley, John: * Elements of Captain Hall's Comet. 16 pp. 4° *London*, 1822

COMET 1822, IV.

Möbius, August Ferdinand: Der dritte Comet des Jahres 1822 ... 5 pp. 8° *Leipzig*, 1823

In *Beobachtungen auf der Königlichen Universitäts-Sternwarte zu Leipzig.*

COMET 1823.

Santini, G.: *See* Comets, Div. I.

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44 ff. 4° *Londini*, 1573
Large figure of Cassiopeiæ with the *Nova Tychonis*. The author gives the distance of the *Nova* from five neighbouring stars, as observed by him in the middle of February 1573, ... *Vndè Loci seu Situs Monumentum saltèm posteris remaneat: si ante Orbis Dissolutionem, Potentissimi Iussu, rursum recesserit.*

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Woodcut of a comet on title-page, but the "star" seen was the planet Venus. The visibility of stars in the daytime from the bottom of a well is discussed on A iii verso. Other objects seen in the daytime are mentioned on B ii verso. *Nova Tychonis* is alluded to on C ii and elsewhere.

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29 pp. 4° *Flensburg*, 1844

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Divini, Eustachio [De Divinis]: ... Eustachius de Diuinis ... offert, dat, et dicat suas obseruationes varijs Telescopijs ... Romæ factus, quæ sequuntur. Plenilunium Martij 1649 Telescopio palmorum 24. obseruatum ...
Plate, 14¾ in. × 12 in. s.l., s.a.

Plate of the Moon, 11¼ in. diameter, without names to the objects depicted.
Figures of Saturn, Jupiter, Venus, and the crescent Moon in the corners.

— Brevis Annotatio in Systema Saturnium Christiani Hugenii ... Una cum Christiani Hugenii responso, ... 23 pp. 4° *Hagæ-Comitis*, 1660

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21 pp. + "vita," 8° *Kopenhagen*, 1873

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23 pp. 4° *Dublin*, 1875

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Auf Reiche leidhe.
Ich wahr wohl junck doch arm itz bin ich alt vndt reich
vor allen bin ich hier vndt dar gekrenckt zue gleich
da ich es brauchen kundt ach hat ich kaum das leben
nun ichs nicht brauchen kan so wirt es mihr gegeben.

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— Discovrs merveillevx et effroyable dv grand tremblement de terre, aduenu és villes de Rouen, Beauuais, ... & autres endroicts ... *Auec le treicté des Processions, & prieres publiques qui ont esté faictes le vj. iour d'Auril*, 1580.
11 ff. 8° *Paris*, 1580
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— A Dissertation upon Earthquakes, their causes and consequences; ... with a distinct account of ... an Earthquake, felt in ... London ... on ... February 8, 1749-50. 62 pp. 8° *London*, 1750

— An Account Of the late Dreadful Earthquake and Fire, Which destroyed the City of Lisbon,...
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Horton, —
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— * Report on the Difference of Longitude between the U.S. Naval Observatory and the Sayre Observatory of Lehigh University.
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— De novo planeta. 16 pp. 4° *Vitebergae*, 1785

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— Speculum Mundi: Or, an Exact Account Of the Great and Formidable Eclipse of the Sun, Which will be Visible, Total, and Central, in England, May 11, 1724.
3 ff. + 55 pp. 8° *London*, 1723
Wants frontispiece.

— Abbildung und Beschreibung der drey grossen Sonnen- und Mondenfinsternisse welche sich im Jahre 1816. ereignen, ...
1 diagram, 1 chart, 40 pp. 4° *Meiszen*, s.a.

— L'eclisse totale di sole ... 8 Luglio 1842 ...
15 pp. 8° *Milano*, 1842

— Descrizione dell'ecclisse solare che accadrà il giorno 8 luglio del corrente anno 1842.
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— English Government Eclipse Expedition. Instructions for Observers. Prepared under the Direction of the Eclipse Committee of the British Association. 62 pp. 8° *London*, 1871

— [Map of the *Asiatic Archipelago* with the path of the Solar Eclipse of April 6th, 1875, laid down on it.] Sheet, *London*, s.a.

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— * On the Law of Human Mortality expressed by a new formula. 21 pp. 8° *London*, 1860

— On the value of Mr. Gompertz's formula for the number living in terms of the Mortality according to age, ... 10 pp. 8° *London*, 1862

— * On the elastic force of Steam of maximum density ... 20 pp. 8° *London*, 1865

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Egerton, Francis Henry: Description du plan incliné souterrain, ... de Walkden-Moor, ... Lancashire. 1 plate, 47 pp. 8° *Paris*, 1812

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— Die Erscheinung der Venus in der Sonnenscheibe, als eine sehr seltene und weil die Welt stehet nur einmal bemerkte Himmelsbegebenheit; welche zum andernmal den 6 Jun. dieses Jahrs Vormit. erscheinen wird. 1 plate, 35 pp. 4° *Nürnberg*, 1761

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— * Observation of the Transit of Venus, December 6, 1882, at the Observatory of Queen's College, Cork. 2 pp. 4° *Dublin*, 1883

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112 ff. fol. [*Avgvstae Vindelicorvm*, 1556]

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3 diagrams, 24 ff. 8° *London*, s.a.

— 1688. Apollo Anglicanus, the English Apollo: ... A twofold Kalendar, viz. Julian or English, Gregorian or Forein ... By Richard Saunders,... [Saunder, 1688. The Second Part. Containing the Eclipses; ...].
1 woodcut, 24 ff. 8° *London*, 1688

— Vox Uraniæ: an Almanack Astronomical, ... For the Year...1688....By Daniel Woodward,...
2 figures, 16 ff. 8° *London*, 1688

London—*cont.* A Catholic & Protestant Almanack For the Year of our Lord God 1688. ...
18 ff. 12° *London*, 1688

— The Nautical Almanac and Astronomical Ephemeris, for the year 1767. [-1831.] Published by Order of the Commissioners of Longitude. 8° *London*, 1766-1828

— The Nautical Almanac and Astronomical Ephemeris for the year 1832. [-1877] Published by order of the ... Admiralty.
8° *London*, 1829-73

— The Nautical Almanac and Astronomical Ephemeris for the year 1878 [-1891], for the Meridian of the Royal Observatory at Greenwich. Published by order of the ... Admiralty.
8° *London*, 1874-87

— Ephemerides of the minor planets. 1858-59, '61-66. 8° [*London*] 1857-65

Ludgershall: News out of the West from the Stars: or, a new Ephemeris Made in Wiltshire,... Calculated for the Meridian of ... Ludgershall, ... By William Davis, ...
1 figure, 24 ff. 8° *London* [1687]

Madrid: Anuario del Observatorio de Madrid. Año 1869, 1870, 1877-80. 8° *Madrid*, 1868-79

Año 1869 forms the 9th volume of the series.

Mexico: Anuario del Observatorio astronómico de Chapultepec. Año de 1881. [-1883.] [I.-III.]
8° *México*, 1880-82

— Anuario del Observatorio astronómico nacional de Tacubaya. Año de 1884. [-1888.] [IV.-VIII.]
8° *México*, 1883-87

In continuation of the preceding series.

Milan: Opuscula astronomica ex ephemeridibus mediolanensibus selecta.
4 plates, 3 ff.+216 pp. 8° *Mediolani*, 1789

Plate of Milan Observatory. Papers on Comets, Saturn, &c.

— Effemeride astronomiche di Milano ... 1841, '43, '46, '48, '61-63, '65, '67-72, 1873 pt. I.
8° *Milano*, 1840-72

Munich: Astronomisches Jahrbuch für physische und naturhistorische Himmelsforscher, ... 1839. [-1849.] Band 1-10. 8° *München* ..., 1838-47

— Jahrbuch der Königlichen Sternwarte bei München ... herausgegeben von J. Lamont. 1838. [-1841.] 4 vols. 8° *München*, s.a.

Origanus, David: Novæ Motuum Cœlestium Ephemerides Brandenbvrgicæ, Annorvm LX, incipientes ab anno 1595, & desinientes in annum 1655, ... Cum Introductione ...

1 table, 54 ff. + 790 pp. + 1 f. 4° *Francofurti cis Viadrum*, 1609.

This volume contains only the introduction; the two volumes of ephemerides are wanting.

Pantheus, Giovanni Agostino: Lvnario perpetuo, con la dimostratione della scala della Epacta per le notri: lo trouar de ogni giorno che habbi la luna per sempre: ...

3 woodcuts, 15 ff. 4° *Vinegia*, 1535

Paris [Fine, Oronce]: Les canons & docvmens tresamples, touchant lusaige & practique des cōmuns Almanachz, que l'on nomme Ephemerides. Briefue & isagogique introdvction, svr la iudiciaire Astrologie: ...

44 ff. 8° *Imprimez à Paris par Simon de Colines*, 1543.

Diagrams.

Paris: Connaissance des Temps, 1681, '93, 1699-1715, 1717-21, '23-26, '28-32, '34-36, '38-40, '42-44, '46-50, '52-53, '56-57, '59, '61-64, 1766-1800, 1802-1887. 8° *Paris*, 1681-1885

— *See* Academies, Paris.

— Annuaire de la République française, présenté ... par le Bureau des Longitudes, pour l'année X [-XII] ... 12° *Paris*, An IX-XI [1803]

— Annuaire présenté ... par le Bureau des Longitudes, pour l'an XIII [1805]. [-1823.] 12° *Paris*, An XII [1804]-1822

— Annuaire pour l'an 1824 [-1847], présenté ... par le Bureau des Longitudes. 12° *Paris*, 1823-46

— Annuaire pour l'an 1848 [-1887], publié par le Bureau des Longitudes. 12° *Paris*, 1847-86

Pitatus, Petrus: Almanach novvm ... Superadditis annis quinq, supra vltimas hactenus in lucem editas Ioannis Stoefleri Ephemeridas. 1551. ad ... annū M.D.LVI. ...

4+78+14×14 ff. 4° *Venetiis*, 1542

The ephemerides by Stoeffler begin with A.D. 1543. There are 14 folios to each year.

— Almanach novvm ... ab anno Christi MDLII. vsq, ad annum MDLXII.

212 ff. 4° *Venetiis*, 1552

Regiomontanus, Joannis: [Kalendarium. A.D. 1475 to 1531.]

30+2 ff. diagrams, 4° [*Nürnberg, circa* 1475] [*In fine*]: *DVCTV IOANNIS DE MONTEREGIO.*

— [Kalendar. A.D. 1475 to 1531.]

28+2 ff. diagrams, 4° [*Nürnberg, circa* 1475] [*In fine*]: *Also ist begriffen körczlich diss kalenders nucz vnd töglichait nach meinē slechten tewtsche vnd chlainem vermögen M. Johan von köngsperg.*

— Qvesta opra ... Dil kalendario ... [A.D. 1475 to 1531.] 4 diagrams, 28 ff. fol. *Venetijs*, 1476

— [Kalendarium. A.D. 1475 to 1531.]

4 diagrams, 28 ff. 4° [*Anno. S.* 1482.... *Venetijs*]

— Kalendarium magistri Joannis de monteregio viri peritissimi.

4 diagrams, 28 ff. 4° [*In fine*]: *Kalendariū ... explicit ... Erhardi ratdolt ... industria: ... auguste vindelicoꝝ* ... 1489.

— *See* Calendars, 1492.

— Kalendarius cum vero motu solis ♓ duplici modo inueniendi verum motum lune. ...

1 diagram with volvelles, 3 woodcuts, 18 ff. 4° s.l. [1502].

— [Incipit] In laudem operis Calendarij...Carmina.

4 diagrams, 28 ff. 4° [*On verso of fol. 1*]: *Hoc opus ... ex officina Petri Liechtenstein ... prodijt.* [*Venice*] *Anno ...* 1507.

— KAlendarius teütsch Maister Joannis küngspergers ...

77 ff. 4° [*In fine*]: ... *Kalendarius Maister Joannis Küngspergers. vnd ... Higinius. Von den 12 zaychen vñ 36 pildern des himels | ... Augspurg ... M.D.xiiij. ...*

Many woodcuts and diagrams in addition to the 36 *pildern.*

— [Incipit] In laudem operis Calendarij...Carmina.

4 diagrams, 28 ff. 4° [*Venice*] *Anno.* 1514. *Ex officina Petri Liechtenstein.*

Saffron-Walden: Pond an Almanack for the Year of our Lord God 1688. ... fitted for the Meridian of Saffron-Walden....

1 woodcut, 24 ff. 8° *Cambridge*, 1688

San Fernando: Almanaque Náutico para el año 1888, [1889] ... 8° *Madrid*, 1886-87

Schumacher, Heinrich Christian: Distances of the Sun, and the four planets, Venus, Mars, Jupiter and Saturn, from the moon, ... for every day in the year 1835, ...
xxvi.+280 pp. 8° *Copenhagen*, 1834

— Jahrbuch ... Herausgegeben von H. C. Schumacher, ... 1836. [-1841, '43, '44.] 8 vols.
8° *Stuttgart und Tübingen*, 1836-44
Was not published in 1842.

Stamford: ΟΛΥ'ΜΠΙΑ ΔΩ'ΜΑΤΑ or an Almanack for the Year ... 1688. ... referred to the Horizon of ... Stamford, ... Latitude 52 deg. 41 min. ... By John Wing ...
3 diagrams, 24 ff. 8° *Cambridge*, 1688

Stöffler, Johann: Calendarivm Romanvm magnum, Cæsareæ maiestati dicatum.
4 diagrams, 48 woodcuts, 138 ff. fol. [*Oppenheym*, 1518].

— Ephemeridvm opvs..à capite anni.. M.D.XXXII. in alios XX. proximè subsequentes, [1532-1551] ... elaboratum.
38 + 14 × 20 ff. 4° *Tvbingae* [15]31
Portrait on title.

— The same.
2 tables, 38+14×20 ff. 4° *Tvbingae* [15]33
On the titlepage is a portrait but different from that in the earlier edition.

Stöffler, Johann, und Pflaum, Jacob: Almanach noua plurimis annis venturis inseruientia: ...
36 ff. 4° [*In fine*]: *Opera ... Ioannis Reger Anno ... 1499. ... he Ephimerides ... absolute sunt Vlme. ...*
This is the introduction only, without the ephemerides.

— Ephemerides anno virginei partus. ... 1499.
14 ff. 4° [*Ulm*, 1499]
Without signatures. Apparently is a complete year taken from the *Almanach noua* printed at Ulm in 1499.

— Ephemerides anno virginei partvs 1501.
14 ff. 4° [*Ulm*, 1499]

— Almanach noua plurimis annis Venturis inseruientia: ...
16 ff. 4° [*In fine*]: *Anno ... M.d.iiij. ... Venetijs ...*
Only the title and introduction. The complete work has 430 ff.

— Almanach noua plurimis annis, [1506-1531] venturis inseruientia: ...
42 + 14 × 26 ff. 4° [*Venetiis*, 1506]

— Almanach noua plurimis annis [1523-1531] venturis inseruientia: ...
22+14×19 ff. 4° [*Venetijs*] 1522

Venice: Ephemerides sive Almanach perpetuum. [Johānes Lucilius Santritter ...]
122 ff. 4° [*In fine*]: *Ephemerides ... arte ... Petri Liechtenstein ... explete Anno ...* 1498 ... *Venetijs ...*

— Ephemerides coelestivm motvvm Io. Antonii Magini ... Ab anno Domini 1581. vsque ad annum 1620. ...
Portrait, 8 + 208 ff. 4° *Venetiis*, 1582
This volume contains the introductory part, without the ephemerides.

— Ephemerides coelestivm motvvm Io. Antonii Magini ... Ab anno ... 1608. vsque ad Annum 1630. ... 2 plates, 536 ff. *Venetiis*, 1609
A colophon dated 1606 follows part of the ephemerides.

— Svpplementvm Ephemeridvm, ac Tabularum Secundorum Mobilium, Io. Antonii Magini ...
8+311 ff. 4° *Venetiis*, 1614

Vienna: Ephemerides Astronomicæ Anni 1777. ad meridianum vindobonensem ... calculatæ a Maximiliano Hell, ... cum appendice ...
5 plates, 322 pp. + 2 ff. + 119 pp. 8°. *Viennæ*, 1776.

Washington: The American Ephemeris and Nautical Almanac. 1857, 1861-69, '71-79, '81.
8° *Washington*, 1854-78

Zacutus, Abraham: Almanach perpetuuȝ exactissime nuper emēdatū omniū celi motuum cum additionib9 in eo factis tenens complementum.
24+219 ff. 4° [*Venetijs*, 1502]

— Almanach perpetuū siue tacuinus / Ephemerides ꝛ diariū Abraami zacuti hebrei. ...
16+208 ff. 4° [*Venetiis*, 1525]

Epps, James: Prospectus of new Tables of Proportional Parts. 2 ff. 4° [*London*, 1836]

Erastus, Thomas: De Cometarum Significationibus judicium. 21 pp. 4° [*Jenæ*, 1665]

Erdmann, J. E.: *See* Leibnitz, G. W.

Erdmann, Otto Linné: De nonnullis niccoli combinationibus. Pars prior [posterior].
40 pp. 4° *Lipsiae*, 1836

Ericsson, Gustaf: Bestämning af Upsala Observatorii Polhöjd. [Inaugural Dissertation.]
1 plate, 68 pp. 8° *Upsala*, 1885

Ericsson, J.: On the Caloric Engine.
1 plate, 14 pp. 8° [*London*] 1833

Erle, William Benson: *See* Winchelsea, Earl of.

Erlecke, A.: Bibliotheca Mathematica. Systematisches Verzeichniss der bis 1870 in Deutschland auf den Gebieten der Arithmetik ... Astronomie ... erschienenen Werke ...
224 pp. 8° *Halle*, 1872

Ernesti, Johann August: Defensio vetervm philosophorvm adversvs eos qvi methodvm mathematicam ab iis vel ignoratam vel male neglectam esse contendvnt. xvi. pp. 4° *Lipsiae*, 1741

Errard, Jean: La Geometrie, et Practiqve generale d'icelle. Troisiesme Edition.
352 pp. 8° *Paris*, 1619
Chasles 2235.

Ersch, Johann Samuel: Literatur der Mathematik, Natur- und Gewerbskunde mit Inbegriff der Kriegskunst ... seit der Mitte des achtzehnten Jahrhunderts bis auf die neueste Zeit, ...
8° *Leipzig*, 1813

— The same. Neue fortgesetzte Ausgabe von Frz. Wilh. Schweigger-Seidel. ...
8° *Leipzig*, 1828

Ertborn, Octave van: *Observations de la planète Vénus en 1876. 5 pp. 8° *Bruxelles*, 1877
Woodcuts in text.

Eschenbach, Hieronymus Christoph Wilhelm: Epistola ... Inest in locum Kaestnerianum de multipli angulorum tangentibus commentatio.
20 pp. 4° *Lipsiae*, 1785

— ... Resolutio Problematis ... quomodo, si datur objecti, duobus e locis dissitis visi, distantia a superficie terrae, alteriusque loci situs, determinari possit loci alterius et puncti, in cuius vertice fuit obiectum, positio.
32 pp. 8° *Lipsiae*, 1788

— De serierum reversione formulis analytico-combinatoriis exhibita specimen.
35 pp. 4° *Lipsiae*, 1789
A second copy has two extra pages with tables of coefficients.

Eschinardi, Francesco: De Impetv tractatvs dvplex ...
10 plates, 4 ff. + 336 pp. 4° *Romæ*, 1684
On plate VII. is figured a contrivance for recording the moon's libration.

Escuela de Palas: Escuela de Palas ò sea Curso Mathematico Tomo I. Dividido en XI. Tratados, que contienen La Arithmetica, Geometria Especulativa, Practica, Lugares planos, Dados de Euclides, Esphera, Geographia, Algebra Numerosa, y Especiosa, Trigonometria, y Logarithmica, y ultimamente el Arte Militar, ...
116 plates, 10 ff., 40+217+212 pp.+6 ff. fol. *Milan*, 1693.

Esenbeck, Georg Samuel: De mathesi barbarica.
9+17 pp. 4° [*Altorf*] 1711

Esersky, Théodore d': Esersky's calculating machine for the effecting of additions, subtractions, multiplications and divisions.
4 ff. 4° [*Leipzig*, 1875]
In German, Russian, English and French.

Eshcuid, Joannes [Eastwood]: Summa astrologiæ iudicialis de accidentibus mundi quæ anglicana uulgo nuncupatur Ioannis eshcuidi niri [sic] anglici peritissimi sciētiæ astrologiæ fœlici sidere inchoat.
2 + 220 ff. fol. [*In fine*]: *Opera ... Iohannis lucilii. Sanctiter (sic) helbrōnensis germani. ... Anno salutis. 1489. nonis Iulii impressione completum est Venetiis.*
The three first initials are illuminated and the headings and capitals are picked out with red throughout the volume.

E[sper], Johann Friedrich: Anweisung den Lauf eines Cometen ... und anderer Gestirne ohne astronomische Instrumenten und mathematische Rechnungen zu beobachten.
2 plates, 180 pp. 8° *Erlangen*, 1770

Espin, T. H. E. C.: *The Comet of 1882 a History of its Discovery and Appearance.
16 pp. 8° *Liverpool*, 1883

Espy, James P.: *On the Course of the diurnal Fluctuations of the Barometer.
3 pp. 8° *Dublin*, 1840

— [Second and Third Reports on Meteorology—Rules for the Mariner. Charts illustrating the Weather and Comparative Fluctuations of the Barometer, April 1st 1843 to Decr 1st 1845].
65 pp. oblong fol. [*Washington*, 1851]

Esselbach, Ernst: *Über die Messung der Wellenlänge des ultravioletten Lichts.
5 pp. 8° *Berlin*, 1856

Eszler, Joannes [Essler]: Speculum Astrologorum.

12 ff. 4° [*In fine*]: *Impressum Maguntie per Ioannem Scheffer Anno dñi Millesimo quingentesimooctauo.*

Chasles 2997.

3 diagrams and printer's device.

— *See* Purbach, G., 1596.

Etten, Henry van: Mathematicall Recreations, or, A Collection of many Problemes, extracted out of the Ancient and Modern Philosophers, ... wherunto is added the Description and Use of ... The Double Horizontall Diall ... by William Oughtred.

1 plate, 18 ff.+286 pp.+8 ff. 8° *London*, 1853

The numerous diagrams are all engraved.

Euclides Megarensis: Preclarissimus liber elementorum Euclidis perspicacissimi: in artem Geometrie incipit quā foelicissime:

137 ff. fol. [*In fine*]: *Opus elementorū euclidis megarensis in geometriā artē In id quoque Campani pspicacissimi Cōmentationes finiūt. Erhardus ratdolt ... venetijs impressit. Anno salutis. M.cccc.lxxxij. Octauis. Caleñ. Iuñ. Lector. Vale.*

For an account of this, the first edition of Euclid's Elements, *see* Kästner, A. G., 1775.

The propositions are numbered with Arabic figures of the modern form.

— Preclarissimus liber elementorum Euclidis perspicacissimi: in artem Geometrie incipit quā fœlicissime:

135 ff., first blank, fol. [*In fine*]: *Opus elementorum euclidis megarensis in geometriam artem In id quoque Campani perspicacissimi Commentationes finiunt. Impresuȝ Vincentiæ per..Leonarduȝ de Basilea & Gulielmū de Papia Socios. Anno salutis M.cccclxxxxi. ...*

Curious woodcut border round three sides of the first page.

— Euclidis megarensis...opa a Campano interprete fidissimo tralata ... Lucas paciolus... emendauit. Figuras cētum ⁊ vndetriginta ... concīnauit: ⁊ multas necessarias addidit. Eundē quoq; plurimis locis ... cōmentariolis ... illustrauit ...

145 ff. fol. [*In fine*]: *Venetiis impressum per... Paganinum de Paganinis ... Anno redemptionis nostre. M.D.VIIII. Klen. xi. Iunii. ...*

Euclides Megarensis—*cont.* Evclides Megarensis Geometricorum elemētorum libri XV. Campani Galli trāsalpini in eosdem cōmentariorum libri XV. Theonis Alexandrini Bartholamæo Zamberto Veneto interprete, in tredecim priores, commentariorum libri XIII. Hypsiclis Alexādrini in duos posteriores, eodē ... Zamberto... interprete, commētariorum libri II.

261 ff. fol. *Parisiis in officina Henrici Stephani* ... [1516].

"Édition rare publiée par Jacques Le Fèvre d'Etaples qui l'a dédiée à François Briçonnet.—On remarquera que sur le titre de cette édition, le commentateur d'Euclide: *Campanus* est indiqué comme étant un Français fixé en Italie: *Transalpinus Gallus*. Il serait intéressant de faire des recherches pour découvrir le véritable nom de ce mathématicien."—*Chasles.*

— Euclidis megarēsis philosophi platonicj, Mathematicaruȝ disciplinarū Janitoris: Habent in hoc volumine ... elemētorum libros. xiij. cū expositione Theonis ... Deputatum scilicet Euclidi volumē. xiiij. cū expositiōe Hypsi. Alex. Itidēq; ⁊ Phaeno. Specu. ⁊ Perspe. cum expositione Theonis. ac mirandus ille liber Datoȝ cum expositiōe Pappi Mechanici vna cū Marini dialectici protheoria. Bar. Zāber. Vene. Interpte.

240 ff., last blank, fol. [*In fine*]: *Impressum Venetiis ... in ædibus Ioannis Tacuini ... Anno reconciliatæ diuinitatis. M.D.X.VII. Klendas Aprilis.*

— ΕΥΚΛΕΙΔΟΥ ΣΤΟΙΧΕΙΩΝ ΒΙΒΛ. ΙΕ'. 'ΕΚ ΤΩΝ ΘΕΩΝΟΣ ΣΥΝΟΥΣΙΩΝ. *Εἰς τοῦ αὐτοῦ τὸ πρῶτον, ἐξηγημάτων Πρόκλου βιβλ. δ'*

6 ff.+268+115 pp. fol. *Basileae apvd Ioan. Hervagivm anno M.D.XXXIII. ...*

The first Greek edition. Numerous MS. notes and variants of early date.

— Evclide Megarense ... solo introdvttore delle scientie mathematice: diligentemente reassettato, et alla integrità ridotto per ... Nicolo Tartalea. ...

ccxxxix. + 1 ff. fol. [*In fine*]: *Stampato in Vinegia per Venturino Roffinelli ... Nel Mese di Febraro. Anno di nostra salute M.D.XLIII.*

— Euclidis Megarensis ... Elementorum geometricorum libri XV. Cum expositione Theonis ... Campani ... & Hypsiclis Alexandrini ... His adiecta sunt Phænomena, Catoptrica & Optica, ... Postremùm uerò, Opusculum de Leui & Ponderoso, hactenus non uisum, eiusdem autoris.

4 ff. + 587 pp. fol. *Basileae, per Iohannem Hervagivm, ... M.D.XLVI.*

Euclides Megarensis—*cont.* Resolvtio omnivm Evclidis problematvm aliorumq, ad hoc necessario inuentorum vna tantummodo circini data apertura, per Ioannem Baptistam de Benedictis inventa. xii.+58 ff. 4° *Venetiis*, 1553

— Das sibend / acht vnd neunt buch / des hochberümbten Mathematici Euclidis Megarensis/... durch ... Johann Scheybl / ... an tag geben / ...
6 ff.+ccxxxiiii. pp.+2 ff. 4° [*Augspurg*] 1555

— ΕΥΚΛΕΙΔΟΥ 'ΟΠΤΙΚΑ' ΚΑΙ' ΚΑΤΟΠΤΡΙΚΑ'. Euclides Optica & Catoptrica, nvnqvam antehac græce ædita. Eadem latine reddita per Ioannem Penam ...
10 ff.+48 pp.+2 ff.+64 pp. 4° *Parisiis*, 1557

— Elementorum geometricorum libri XV. Cum expositione Theonis in priores XIII à Bartholomæo Zamberto ... donata, Campani in omnes, & Hypsiclis ... in duos postremos. His adiecta sunt Phænomena, ... Postremùm uerò, Opusculum de Leui & Ponderoso, ... eiusdem autoris.
4 ff.+587 pp. fol. *Basileae*, 1558

— The Elements of Geometrie of the most auncient Philosopher EVCLIDE of Megara. Faithfully (now first) translated into the Englishe toung, by H. Billingsley, Citizen of London. Whereunto are annexed certaine Scholies, Annotations, ... With a very fruitfull Præface made by M. I. Dee, ...
28+464 ff. fol. [*In fine*]: *At London Printed by Iohn Daye, dwelling ouer Aldersgate beneath Saint Martins.* ... 1570.
Has Dee's *Groundplat* of the preface, 22 in. × 14 in. ; also John Daye's portrait at the end, *Ætatis suæ xxxx. ... 1562.*
This book belonged to Sir Kenelm Digby, whose arms are on the binding.

— Evclidis Megarensis mathematici clarissimi elementa, libris XV. ... Accessit decimussextus liber, ... Nouissimè collati sunt decimusseptimus & decimusoctauus, priori editione ... polliciti, ... Avthore D. Francisco Flussate Candalla.
12 ff.+575 pp. fol. *Lvtetiæ, Apvd Iacobvm dv Pvys*, 1578. [*sed in fine*]: *Lvgdvni, ex officina Ioannis Tornæsii, ... M.D.LXXVIII.*
On the titlepage is the small woodcut of Our Lord and the Woman of Samaria at the well.

— Evclidis posteriores lib. IX Accessit XVI. de Solidorv̄. Regularium ... comparatione: Omnes perspicvis demonstrationibus, ... iterum editi ... Avctore Christophoro Clavio ...
959 pp.+48 ff., indices, 8° *Romæ*, 1589
Engraved titlepage.

Euclides Megarensis—*cont.* كتاب تحرير اصول لاوقليدس من تاليف خوجه نصيرالدين الطوسي [The Book of the Exposition of the Principles of Euclid, the work of Khojah Nasir-ed-Din-at-Tusi.] 453 pp. fol. [*Roma*, 1594]
The first Arabic edition. Printed at the Medicean Press.

— Evclidis elementorvm libri XV.
14 ff.+203 pp. 12° *Coloniæ Apud Gosuinum Cholinum M.D.C.*

— Evclidis Optica et Catoptrica e græco versa per Ioan. Penam ... 8 ff.+64 pp. 4° *Parisiis*, 1604

— Les Elemens de la Geometrie d'Evclides Megarien. Traduicts & restitutés à leur ancienne breueté, selon l'ordre de Theon. Ausquels ont esté adioustez les quatorze & quinziesme d'Ipsicles Alexandrien. Le tout par Dovnot de Bar-le-Dvc. 3 ff.+264+51 pp. 4° *Paris*, 1610
The eleventh *Element* (book) ends on p. 264. The paging then starts afresh at 89 and finishes with p. 139 at the end of the 15th *element*. As the first five *elements* fill 88 pages, it seems to have been intended to issue copies without *elements* VI. to XI.

— Evclidis elementorvm libri XV. Qvibvs, cvm ad omnem mathematicae scientiae partem, tvm ad qvamlibet Geometriæ facilis comparatur aditus.
14 ff.+203 pp. 8° *Coloniae*, 1612

— I primi sei libri de gl'Elementi d'Euclide ridotti alla Prattica da Pietro Antonio Cataldi. ...
4 ff.+271 pp. fol. *Bologna*, 1620

— Euclid's Elements of Geometry. In XV. Books: ... To which is added, a Treatise of Regular Solids, By Campane and Flvssas. Likewise Euclid's Data: ... Published by the Care and Industry of John Leeke and George Serle, ...
Portrait, 26 ff.+650 pp.+1 f., errata, *London: Printed, by R. & W. Leybourn*, ... 1661.
Dee's preface and *Ground-plat* are reprinted in this edition.

— Qvinto libro degli elementi D' Evclide, ovvero scienza vniversale delle proporzioni spiegata colla dottrina del Galileo, ... da Vincenzio Viviani ultimo suo Discepolo. Aggiuntevi cose varie, e del Galileo, e del Torricelli; ...
6 ff.+149+3 pp. 4° *Firenze*, 1674
Autograph of *Vincenzio Viviani* on verso of title.
Chasles 1660.

Euclides Megarensis—*cont.* Euclid's Elements. Vol. II. Containing The Seventh, Eighth, Ninth, Tenth, Thirteenth, Fourteenth and Fifteenth Books; with The Data: ... Now first Translated from Dr. Gregory's Edition. To which is prefix'd An account of...Euclid. With A Defence of his Elements against the Modern Objectors. By Edmund Stone. 8° *London*, 1731

The first volume is wanting.

— Euclid's Elements of Geometry, from the Latin Translation of Commandine. To which is added, A Treatise of ... Logarithms; Likewise Another of the Elements of ... Trigonometry; With A Preface ... By Doctor John Keil, ... The Whole revised...By Samuel Cunn. The Third Edition, ... corrected By John Ham.
17 plates, 7 ff.+393 pp. 8° *London*, 1733

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8 + 209 + 1 ff. fol. [*In fine*]: *Excvsvm est ... Parisijs in uico Sorbonico, impensis Gerardi Morrhij, & Ioannis Petri. Anno M.D.XXXII.*

There are four books of Arithmetic, two of Geometry, five of Cosmography and four of Gnomonics, besides 22 tables.

Many woodcuts.

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Title in broad ornamental border with figures of Geometry, Astronomy, Arithmetic and Music.

— Orontij Finei ... De Mundi sphæra, siue Cosmographia, primáve Astronomiæ parte, Lib. V: ... Eivsdem Orontii, Rectarum in circuli quadrante subtensarum (quos sinus vocant) demonstratio ... vnà cum eorūdē sinuū tabula, ... Eivsdem Orontii, Organum vniuersale, ...

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The same border round title as in the preceding work.

One full page woodcut and many small ones in text.

— Orontii Finaei ... Quadratura Circuli, ... De circuli mensura, & ratione circūferentiæ ad diametrum, ... De multangularū omniū & regulariū figurarū descriptione, ... De inuenienda longitudinis locorum differētia,...Planisphærium geographicum, ...

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Belonged to *Charles Babbage*, whose autograph is on the fly-leaf. In continuation *De Morgan* has written, *Sent this book to me March 15, 1846, in which I forthwith found at pages 73 and 76 the first introduction of the words* tangent *and* secant, *the author of which has hitherto, I think, been overlooked by historians.*

Finland: Wäg-Karta öfver Finland ...
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8 ff. + 244 + 143 pp. + 44 ff. fol. *Basileae ex officina Ioannis Hervagii,...Anno M.D.XXXIII.*

— The same.
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1 plate, 6 ff.+104 pp. 4° *Argentorati*, 1612

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— Nov-Antiqua *Sanctissimorum Patrum, & Probatorum Theologorum Doctrina, De* Sacræ Scripturæ Testimoniis, in Conclusionibus mere Naturalibus, quæ sensatâ experientiâ, & necessariis demonstrationibus evinci possunt, temere non usurpandis: ... *Nunc vero juris publici facta, cum Latina versione Italico textui simul adjuncta.*

4 ff.+60 pp.+2 ff. 4° *Augustæ Treboc*, 1636

— Discorsi e Dimostrazioni matematiche, *intorno à due nuoue scienze* Attenenti alla Mecanica & i Movimenti Locali. *Con vna Appendice del centro di grauità d'alcuni Solidi.*

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— Le operazioni del Compasso geometrico, et militare. Terza Edizione.

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Chasles 1660.

— Della Scienza Mecanica, e delle Vtilita Che si traggono da gl'Instromenti di quella.

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Diagrams in text.

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— * Carteggio Galileano inedito con note ed appendici per cura di Giuseppe Campori.
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A fragment.

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Danesi, L.
Gassendi, P.
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— Tables of Mortality deduced from the experience of the Amicable Society ... To which are added, Comparisons of the Mean Duration and Probabilities of Life ... 17 ff. 4° *London* [1841]

Gallucci, Giovanni Paolo [Gallucius]: Theatrvm Mvndi, et Temporis, In quo non solvm precipvae horvm partes describuntur, & ratio metiendi eas traditur, sed accomodatissimis figuris sub oculos legentium facilè ponuntur. ... Nunc primum in lucem editum. 8 ff.+478 pp. 4° *Venetiis*, 1588

Many figures, including a large number of *volvelles* and 48 figures of the constellations. On pp. 41 and 43 are the two hemispheres of the globe in orthogonal projection. That of the New World shows South America separated from the southern *Terra incognita* by a narrow strait in about 56° of south latitude. The peninsula of California is also roughly figured. Near the end is a table of natural sines for every minute of the quadrant to a radius of 60000.

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Chasles 2235.

— Discussion des Racines des Équations déterminées du premier degré, à plusieurs inconnues, et Élimination Entre deux Équations de degrés quelconques à deux inconnues. Deuxième Édition. 1 table, 99 pp. 8° *Paris*, 1813

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Garrard, William: Copious Trigonometrical Tables, ... Intended to complete the Requisite Tables to the Nautical Almanack; ...

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6 pp. 4° *Napoli*, 1879

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— * Sul valore inverso del cubo della distanza variabile di due pianeti espresso con una serie ordinata secondo le potenze del tempo.

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— * Sopra una serie per la calcolazione numerica delle perturbazioni planetarie. 14 pp. 4° *Napoli*, 1883

— * Formole e tipo numerico pel calcolo della variazione del semiasse maggiore dell'orbita di Vesta prodotta dall'azione di Giove. 6 pp. 4° *Napoli*, 1883

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Gassendi, Pierre: Institutio Astronomica, juxta Hypotheseis Tam Veterum quam Recentiorum. Cui accesserunt Galilei Galilei Nuncius Sidereus, et Johannis Kepleri Dioptrice. Tertia Editio... 2 plates, 8 ff.+199+173 pp. 8° *Londini*, 1683
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Gauss, Carl Friedrich: Demonstratio nova theorematis omnem fvnctionem algebraicam rationalem integram vnivs variabilis in factores reales primi vel secvndi gradvs resolvi posse. 24 pp. 4° *Helmstadii*, 1799

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— Programmata bina occasione eclipsis Solaris d. XXV Septembr. et eclipsis Lunaris d. XI Octobr. A. MDCCXXVI proposita ...
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— * Russische Expeditionen zur Beobachtung des Venusdurchgangs 1874. Abtheilung II. No. 1. Bearbeitung der photographischen Aufnahmen in Hafen Possiet.
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— * Studien auf dem Gebiete der Absorbtionsspectralanalyse.
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1 plate, 94 pp. 4° *St. Pétersbourg*, 1880

— * Zur Spectroskopie des Wasserstoffs.
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— * Beiträge zur Spectroskopie der Metalloide.
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— * Spectroskopische Beobachtungen der Cometen 1881 *b* und 1881 *c*.
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— * Bemerkung zu Hrn. Wüllner's Aufsatz: "Ueber die Spectra des Wasserstoffs und des Acetylens."
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— * Ueber die Anwendung von Schwefelkohlenstoffprismen zu spectroskopischen Beobachtungen von hoher Präcision.
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Hassfurter, Johannes Laurentius: De basi compvti ecclesiastici.
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162 ff. 12° *New-York*, 1830
Stereotyped edition in pearl type.
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Hastings, Charles S.: *See* Holden, E. S.

Hatchett, Charles: * An analysis of the earthy Substance called Sydneia or Terra Australis.
22 pp. 4° *London*, 1798

— * Experiments ... on Shell and Bone.
22 pp. 4° *London*, 1799

— * Chemical Experiments on Zoophytes; ...
76 pp. 4° *London*, 1800

— * An analysis of a mineral Substance from North America, containing a Metal hitherto unknown. 18 pp. 4° *London*, 1802

— * An analysis of the Magnetical Pyrites, with remarks on ... other sulphurets of iron.
31 pp. 4° *London*, 1804

— * On an artificial Substance which possesses the ... Properties of Tannin.
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Haughton, Samuel: *See* Galbraith, J. A.

Hauksbee, Francis: Physico-Mechanical Experiments on Various Subjects ... touching Light and Electricity ... To which is Added, A Supplement, ... The second edition.
8 plates, 8 ff.+336 pp. 8° *London*, 1719

Hausen, Christian August: De ellipsibvs infinitis propositiones geometricae.
1 plate, 44 pp. 4° [*Lipsiæ*] 1714

— Solvtio qvaestionis an mathemata faciant ad felicitatem humanam, ... 6 ff. 4° *Lipsiæ* [1721]

— Phænomena Solis a Luna tecti conspicva in novilvnio mens. maji Lipsiæ d. XXII. maii, MDCCXXIV. horis vespertinis.
1 plate, 8 pp. 4° *Lipsiae* [1724]

— ... Prodromvs qvo continentvr Eclipses Lunæ nostræ MDCCXXIV. I. Nov. mane; et MDCCXXV. XXI. Octobr. vesperi, necnon intimæ jovialivm Octobr. Nov. Dec. MDCCXXIV. Accedvnt loca quædam Satvrniæ Hvgenianæ et annvli phases Jvl. Avg. et Sept. MDCCXXV.
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xvi.+231 pp. 8° *London*, 1846

Hawkins, John: *See* Cocker, E.

Hayes, Charles: A treatise of Fluxions: or, an Introduction to Mathematical Philosophy.
8 ff.+xii.+315 pp. fol. *London*, 1704

Hearn, George Whitehead: * On the cause of the Discrepancies observed by Mr. Baily with the Cavendish Apparatus for determining the mean density of the Earth. 13 pp. 4° *London*, 1847

Heathcote, R.: Historia Astronomiæ, sive de ortu & progressu Astronomiæ. In duabus partibus.
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Hebenstreit, Johann: Prognosticon astrologicvm, ad annvm Christi M.D.LVIII. *Ex Physicis causis, & obseruationibus artificum scriptum.*
12 ff. 8° *Erphordiae*, s.a.

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Hecht, Heinrich August: Der schöne Halley, ein Komet, den wir mit dem Jahre 1834 wieder zu erwarten haben. ...
3 plates, v.+65 pp. 8° *Ilmenau*, 1833

Hedræus, Benedictus: Nova et accurata Astrolabii geometrici structura, Ubi gradus, horumque singula minuta prima, Nec non, Quadrantis astronomici azimuthalis, Quo ... singula minuta secunda distinctè observari possunt.
8 ff.+104 pp.+16 ff. 8° *Lvgdvni Batavorvm*, 1643.
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Heer, P. O. C. V. de:
See Vorsselman de Heer, P. O. C.

Hegel, Wilhelm Friedrich: De orbitis planetarvm.
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Heger, Richard: Elemente der analytischen Geometrie in homogenen Coordinaten.
viii.+265 pp. 8° *Braunschweig*, 1872

Heiberg, Johan Ludvig: Urania. Aarbog for 1846, udgiven af Johan Ludvig Heiberg.
15 plates, 255 pp. 8° *Kjøbenhavn*, s.a.
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In this copy are many notes and references by J. L. E. Dreyer.

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12 ff. 4° *Lipsiæ*, M.DC.LIIX. [1658]

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The literature of each method is brought together and criticised.

Heime, Fr.: Ueber relative Prim- und correspondirende Zahlen, primitive und sekundäre Wurzeln und periodische Decimalbrüche.
18 pp. 4° *Berlin*, 1860

Heine, Heinrich Eduard: De aequationibus nonnullis differentialibus.
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Heinsius, Gottfried: De viribvs motricibvs.
1 plate, 2 ff.+32 pp. 4° *Lipsiae*, 1733

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— Præcipua anni MDCCXXXVI. currentis Phænomena cælestia calculo eruta ...
1 plate, 27 pp. 4° *Lipsiæ*, 1736

— Beschreibung des im Anfang des Jahrs 1744 erschienenen Cometen nebst einigen darüber angestellten Betrachtungen.
4 plates, 105 pp. 4° *St. Petersburg*, 1744
See page 131.

— De apparantia aeqvatoris lunaris in disco Lunae.
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— De Computo refractionum astronomicarum, sub hypothesi, radium lucis rectae lineae atmosphaeram traiicere, disserit [illustrat]. 2 parts.
2 plates, 4 ff.+8 pp. 4° [*Lipsiae*] 1749

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— De casvvm ambigvorvm atqve determinatorvm in trigonometria, praesertim sphaerica diivdicatione disserit [disserere continvat]. 2 parts.
1 plate, 8+viii. pp. 4° [*Lipsiae*] 1755

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— De eclipsi Solis D. 1. April. 1764. Lipsiae observata. viii. pp. 4° [*Lipsiae*] 1765

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2 plates, 36 pp. 8° *Köln*, 1835

— Die periodischen Sternschnuppen und die Resultate der Erscheinungen, abgeleitet aus den während der letzten 10 Jahre zu Aachen angestellten Beobachtungen.
1 plate, 40+iv. pp. 4° *Cöln*, 1849

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Heis, Eduard—*cont.* * Die Feuerkugel, welche am Abende des 3. Decembers 1861 in Deutschland gesehen worden ist.
1 plate, 18 pp. 8° *Halle*, 1862

— * Die grosse Feuerkugel ... des 4. März 1863 ...
1 map, 56 pp. 8° *Halle*, 1863

— * Grosse Feuerkugel in der Nacht des 10.-11. März [1866] in Westfalen und Hannover.
1 map, 12 pp. 8° *Halle*, 1866

— Sammlung von fünf Sterncharten für die Himmelsgegenden: Nord, Ost, Süd, West und für das Zenith, zum Einzeichnen der Sternschnuppen der November-Periode.
5 plates, obl. fol. *Köln*, 1868

— Atlas coelestis novvs. Stellae per mediam Evropam solis ocvlis conspicvae secvndvm veras lvcis magnitvdines e coelo ipso descriptae.
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— Atlas coelestis novvs. ... Catalogvs stellarvm.
xiii.+181 pp. 8° *Coloniae ad Rhenvm*, 1872

— Beobachtungen, deren Anstellung den Mitgliedern der Expeditionen zur Beobachtung des Durchgangs der Venus anempfohlen wird.
8 pp. 4° [*Münster in Westfalen*, 1874]

— Comet III 1874–Coggia–beobachtet zu Münster Juli 1874 12^h u. eingetragen nach gnomonischer Projection. Chart, 14 in. × 9 in. [*Münster*, 1874]

— Zodiacallicht-Beobachtungen in den letzten 29 Jahren 1847-1875.
vi. + 60 pp. 4° *Münster*, 1875

— Instruction zu den astronomischen Beobachtungen, deren Anstellung der Expedition des Herrn Clemens Denhardt ... anempfohlen wird.
19 pp. 8° *Berlin*, 1877

— Atlas coelestis eclipticus...octo continens tabulas ad delineandum lumen zodiacale.
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Helfenzrieder, Johann Evangelist: Tubus astronomicus amplissimi campi cum micrometro suo et fenestrellis ocularibus...Accedit ex astronomia practica materia exercitationis mathematicae.
1 plate, 50 pp.+3 ff. 4° [*Ingolstadii*] 1773

Helfrecht, J. Th. B.: *See* Brahe, Tycho, 1798.

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Hypsiclis Anaphoricvs sive de ascensionibvs.
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Hell, Maximilian: Observationes astronomicæ ab Anno 1717 ad Annum 1752 a patribus Societatis Jesu Pekini Sinarum factæ et a ... Augustino Hallerstein ... collectæ atque operis editionem ... curante ... Maximiliano Hell ... [Pars prior, Pars secunda].
4 ff.+382 pp., 2 ff.+448 pp. *Vindobonae*, 1768

— Observatio transitus Veneris ante discum Solis die 3 Junii Anno 1769. Wardoëhusii ... facta,...
1 plate, 4 ff.+96 pp. 8° *Vindobonæ*, 1770

— Ephemerides Astronomicæ Anni 1777 ... cum appendice Auroræ Borealis theoria nova.
5 plates, 322 pp.+2 ff.+119 pp. 8° *Viennæ*, 1776

— * Fragment aus P. M. Hell's astronomischem Tagebuch auf Wardoe. 3 ff. fol. *Wien*, 1844
Lithographed facsimile.

— *See* Littrow, K. L. von.

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8 ff., last blank, 4° *Nürnberg*, s.a.

Hellins, John: * Theorems for computing Logarithms. 11 pp. 4° *London*, 1780

— Mathematical Essays on several subjects: containing new improvements and discoveries in the Mathematics. 6 ff.+138 pp. 4° *London*, 1788

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2 ff.+139 pp. 4° *London*, 1789
Reprinted from the 70th volume of the *Philosophical Transactions*, with the addition of notes.

— * Dr. Halley's Quadrature of Circle improved: being a Transformation of his Series for that Purpose to others which converge by the Powers of 80. 6 pp. 4° *London*, 1794

— A new Method of computing the Value of a slowly converging Series, of which all the Terms are affirmative. 17 pp. 4° *London*, 1798

— * On the Rectification of the Hyperbola ...
45 pp. 4° *London*, 1811

Hellmann, Gustav: Die täglichen Veränderungen der Temperatur der Atmosphäre in Norddeutschland. [Inaugural Dissertation.]
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Hellseherin, Die junge: Wichtige Mittheilungen der Somnambule Iphigenia Stradella, über das Jenseits von ihren Reisen in den Mond, die Sonne und die Sterne. ... Zweite Auflage.
viii.+128 pp. 8° *Tübingen*, 1858

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— *Der Stern-Haufen im Sternbilde des Sobieski'schen Schildes.
2 plates, 79 pp. 4° *Hamburg*, 1874

Helmholtz, Herrmann Ludwig Ferdinand: Über die Entstehung des Planetensystems. Vortrag, gehalten ... im Jahre 1871. 39 pp. 8° s.l., s.a.

— *See* Karsten, G.

Helwig, Christoph von: Hundertjähriger Kalender worin I. Die Zeitrechnung ... für die Jahre 1785 bis 1800 ... II. Die Kentnis der Gestirne ... gezeigt. III. Von der Erde ... IV. Von der Bebauung der Erde ... Neue ... Auflage.
39 plates, 4 ff.+442+xxviii. pp. 8° *Leipzig*, 1786.

Henderson, And.: The transit of Venus over the disc of the Sun, June 3 and 4, 1769.
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Henderson, E.: *See* Ferguson, James.

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12 ff., last blank, 4° *Avgvstæ*, 1578
Diagram on title.

— Practica: Auff das Jar nach der Gnadenreichen Geburt vnsers Herren vnd Heylands Jhesu Christi. M.D.LXXXVI. 8 ff. 4° *Augspurg*, s.a.

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Hennah, Thomas H.: Photographic Manipulation. The Collodion Process. Third edition.
viii.+58 pp. 12° *London*, 1855

Hennert, Johann Friedrich: Dissertation sur le problême où il s'agit de déterminer l'orbite Parabolique d'une Comète.
76 pp. 4° *Utrecht*, 1780

— Mémoire sur la théorie des comètes.
59 pp. 4° *Utrecht*, 1780

Hennius, Jo. Michael: Dispvtationem Mathematicam priorem [posteriorem] de Ratione ... exponent praeses M. Io. Michael Hennivs, ... et respondens, Io. Tobias Steinbrvckivs, [Io. Georg. Gotthelf Hvbschivs,] ...
16 ff. 4° *Vitembergae*, 1710

Henricy, John: The Admirable Use of Logarithms, In shortning Arithmetical Operations, Relating to Annuities And other Revenues, ...
15 pp. narrow 8° *London, February* 18, 170$\frac{7}{8}$

Henry, Joseph: *On the Influence of a Spiral Conductor in increasing the Intensity of Electricity from a Galvanic Arrangement of a Single Pair, &c. 8 pp. 8° *London*, 1837

— *Contributions to Electricity and Magnetism.
35 pp. 4° *Philadelphia*, 1839

Henry, William: *Experiments on the Chemical Effects of Galvanic Electricity.
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— *Über Lage und Gestalt von Isochronen in Kometenschweifen. 7 pp. 8° *Wien*, 1884

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Herbert, Joseph: De aqvae, aliorvmqve nonnvllorvm flvidorvm elasticitate.
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Fol. broadside, 12 in. × 10$\frac{3}{4}$ in., plate, 4$\frac{1}{8}$ in. × 10$\frac{1}{2}$ in., s.l., s.a.

Hering, R. G.: Ueber die Methode des Interpolirens. ... 10 pp. 4° *Leipzig*, 1838

Herlicius, David: Kurtze, Natürliche vnd Historische Wiederholung / Von den Pareliis oder dreyen Sonnen / so in diesem 1615. Jahr zu Eysenach ... sind gesehen worden: Mit 48 Exempeln / wenn sich dergleichen Wunderwerck zugetragen / und was daraus erfolget sey / ...
18 ff. 4° *Alten Stettin*, 1615
On the title is the autograph of *D. Kordenbusch.*

— Prodromus...desz Cometen...desz M.DC.XVIII. Jahres ... 6 ff., last blank, 4° *Nürmberg*, 1618
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— Kurtzer Discvrs vom Cometen / vnnd dreyen Sonnen / so am ende des 1618 Jahrs erschienen sind / ...
32 ff. 4° *Gedruckt zu Alten Stettin*, 1619
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— Grosz Prognosticon astrologicvm, Oder PRactica/ Auff das Jahr ... M.DC.XXIII.
18 ff. 4° *Nürnberg*, s.a.
Portrait on verso of title, with the legend *Natus A. 1557. 28. dec.*

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4 ff. 4° [*In fine*]: *Gedruckt zu Alten Stetin* ... 1619.
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Frontispiece, 12 plates, 10 ff. + 401 pp. 4° *Amstelædami*, 1716.

Hermes, Oswald: Die Verhältnisscoordinaten in der Ebene. 24 pp. 4° *Berlin*, 1860

Hermite, Charles: Sur la théorie des équations modulaires et la résolution de l'équation du cinquième degré. 4 ff. + 68 pp. 4° *Paris*, 1859

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2 + 80 ff. 4° *Urbini*, 1575
Many woodcuts in text.

— Gli Artifitiosi et curiosi moti spiritali de Herrone. Tradotti da M. Gio. Battista Aleotti d'Argenta. Aggiontoui dal medesimo Quattro Theoremi ...
4 ff. + 103 pp. + 2 ff. 4° *Ferrara*, 1589
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Hero, Alexandrinus—*cont.* Di Herone Alessandrino de gli avtomati, ouero machine se moventi, Libri due, Tradotti dal Greco da Bernardino Baldi. 47 ff. 4° *Venetia*, 1589
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— * Recherches sur la vie et les ouvrages d'Héron d'Alexandrie ... par Th. Henri Martin.
488 pp. 4° *Paris*, 1854

Herpin, A.: Dictionnaire astronomique ...
7 plates, iii. + 574 pp. 8° *Paris*, 1875

[Herr, Jos.]: Ueber das Verhältniss des Bergkrystall-Kilogrammes, ... zum Kilogramme der kaiserlichen Archive zu Paris, .. Commissions-Bericht erstattet an das k. k. Handels-Ministerium.
iv. + 136 pp. 4° *Wien*, 1870

Herrliberger, Johann: Kurtze und grundtliche Beschreibung / Desz ... erschrockenlichen Wunder Cometen. ... 4 ff. 4° *Zürich*, 1681
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Herrmann, —: * Bestimmung der trigonometrischen Functionen aus den Winkeln und der Winkel aus den Functionen, bis zu einer beliebigen Grenze der Genauigkeit.
17 pp. 8° *Wien*, 1848

— Verbesserung der II. Callet'schen Tafel der gemeinen Logarithmen mit 20 Decimalen, nebst Vorschlägen für die weitere Förderung dieses Zweckes. 16 pp. 8° *Wien*, 1848

Hersbach, Caspar: Kurtzer Discurs / Darinnen die Natur / ... des Cometen / so Anno 1618. im Decembri erschienen ... verzeichnet wird.
17 woodcuts, 28 ff. 4° *Cölln*, 1619
The figures of *Bootes*, *Corona*, *Ursa major* and *Draco* are printed with the blocks used for the *Erklerung oder Auszlegung eines Cometen*, of T. Graminæus at Cologne in 1573.

Herschel, A. S.: *See* Greg, R. P.

Herschel, Caroline Lucretia: * An account of a new Comet. 1 plate, 4 pp. 4° *London*, 1787

— * Account of the Discovery of a new Comet.
6 pp. 4° *London*, 1795

— Catalogue of Stars, taken from Mr. Flamsteed's observations ... and not inserted in the British Catalogue. ... With ... remarks by William Herschel. 1 plate, 136 pp. fol. *London*, 1798

Herschel, Mrs. John: Memoir and correspondence of Caroline Herschel.
2 portraits, 1 woodcut, xii. + 355 pp. 8° *London*, 1876.

Herschel, John Frederick William: * On a remarkable Application of Cotes's Theorem.
1 plate, 19 pp. 4° *London*, 1812

[—] * On Equations of Differences and their application to the determination of functions from given conditions. 50 pp. 4° *Cambridge*, 1813

— * Consideration of various points of Analysis.
29 pp. 4° *London*, 1814

— On circulating functions, and on the integration of a class of equations of finite differences into which they enter as coefficients.
25 pp. 4° *London*, 1818

— * Note on an Application of the Inverse Theory of Functions to the Integral Calculus. (From the works of the late W. Spence, Esq.) [Note on Essay II.] 20 pp. 4° *London*, 1819

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112 plates, 14 ff.+563 pp. fol. *Gedani*, 1647
Many engravings in text.
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Chasles 3247.

— *Illustribus Viris*, Petro Gassendo & Ismaeli Bullialdo, Philosophis ac Mathematicis nostri seculi summis... Johannes Hevelius S. [Dabam Gedani è museo meo, Anno Salutis 1652, die 10. Julij, st. n.] 1 plate, 4 ff. fol. [*Gedani*, 1652]
An account of H.'s observation of the solar eclipse, 1652, April 8.
The author's autograph on the first page—*Dno Bhemio.*

— Johannis Hevelii Epistolæ II. Prior: De Motu Lunæ Libratorio, in certas Tabulas redacto. ... Posterior: De utriusquè Luminaris defectu Anni 1654. 6 plates, 72 pp. fol. *Gedani*, 1654
The first letter is to Riccioli, the other to P. Nucerius, Secretary to the Queen of Poland.
Chasles 3247.

— Dissertatio, De Nativa Saturni Facie, ejusq; variis phasibus, certa periodo redeuntibvs. Cui Addita est, tam Eclipseos Solaris anni 1656 Observatio, quàm Diametri Solis apparentis accurata dimensio.
3 ff. + 40 pp. fol. *Gedani*, 1656

— Mercurius In Sole visus Gedani, Anno Christiano MDCLXI, ... Cui annexa est, Venus In Sole pariter visa, Anno 1639, ... Liverpoliæ, a Jeremia Horroxio: ... Quibus accedit ... historiola, Novæ illius, ac miræ Stellæ in collo Ceti, ... Nec non genuina delineatio Paraselenarum, & Pareliorum ...
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For fuller titles of these works on comets *see* p. 97.

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— Annus climactericus, sive rerum uranicarum observationum annus quadragesimus nonus; exhibens Diversas Occultationes, tam Planetarum, quàm Fixarum post editam Machinam Cœlestem; nec non Plurimas Altitudines Meridianas Solis, ac Distantias Planetarum, Fixarumque, ... & continuatione Historiæ novæ Stellæ in Collo Ceti, ...
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— Firmamentum Sobiescianum, sive Uranographia, totum coelum stellatum, utpote tam qvodlibet sidus qvam omnes et singulas stellas, secundum genuinas earum magnitudines, nudo oculo, et olim jam cognitas, et nuper primum detectas, accuratissimisqve organis rite observatas, exhibens, Et quidem quodvis Sidus in peculiari Tabellâ, in plano descriptum, ...
57 plates, 21 pp. fol. *Gedani*, 1690

The engraved half-title is dated 1687, and shows Hevelius in the act of presenting to *Urania* the new constellations of *Sextans*, *Scutum Sobiesii*, *Lacerta*, *Vulpecula cum ansere*, *Canes venatici*, *Leo minor*, *Lynx* and *Cerberus*, of which the last only has failed to come into general use.

With the autograph *J. E. Bode, 1774 10/24. Berlin.*

— Prodromus astronomiæ, *Exhibens* Fundamenta, quæ tam ad novum planè & correctiorem Stellarum Fixarum Catalogum construendum, quàm ad omnium Planetarum Tabulas corrigendas omnimodè spectant; ...Quibus additus est uterq; Catalogus stellarum fixarum, ...
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On the wrapper of the first number Newton is said to have thus expressed himself with regard to simple but tedious problems:—*They are like the endeavouring to crack, with the teeth, a hard pebble, for the sake of the kernel.*

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20 ff. 4° [*In fine*]: *Enchiridion algorismi sagaci cura studioque ꝑ Iohānē huswirt Sanēseꝫ elaboratꝯ. characteri sequūdo ꝫmissus Colonie In officina felicꝫ memorie honesti viri Henrici Quentell. Anno christi ꝓ Jubileū. iiij.* [1504].

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4 ff. + 180 pp. 4° *Leide*, 1690
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— Opuscula Postuma, quae continent Dioptricam. Commentarios de vitris figurandis. Dissertationem de corona & parheliis. Tractatum de motu. de vi centrifuga. Descriptionem automati planetarii.
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Hoc Augustensis ratdolt germanus Erhardus.
Dispositis signis vndique pressit opus.
... Anno salutis. 1482. *... Venetijs.*
Title in red ink.
Many remarkable woodcuts.

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— ¶ ... De mundi Et sphæræ Ac vtriusq; Partium Declaratione Cum Planetis Et Variis Signis Historiatis.
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— C. IVlii Hygini ... Fabvlarvm liber, ... Eivsdem Poeticon Astronomicon, libri quatuor. *Quibus accesserunt* ... Palaephati de fabulosis narrationibus, liber I. F. Fvlgentii Placiadis ... Mythologiarum, libri III. Eivsdem de uocum antiquarum interpretatione, liber. I. Arati Φαινομένων fragmentum, Germanico Cæsare interprete. Eivsdem Phænomena ... Procli de sphæra libellus, Græce & Latine. ...
12 ff. + 246 pp. + 1 f. fol. *Basileae apvd Ioan. Hervagivm anno, M.D.XXXV* ...

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xxxiii. pp.+1 f. 4° *Rostochii*, 1756

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9 ff. + 449 pp. + 9 ff. 4° *Francofvrti*, 1604

— Joannis Keppleri ... de Stella nova in pede Serpentarii, et qui sub ejus exortum de novo iniit, Trigono Igneo. ... Accesserunt *I. De Stella incognita Cygni: ... II. De Jesv Christi Servatoris Vero Anno Natalitio, ...*
6 ff. + 212 + 35 pp. + 1 f. 4° *Pragae*, 1606

The four parts have separate titles, but the three first are paged in one sequence. *De stella Nova ... Pars Altera ...* and *De Iesv Christi ... Natalitio* were printed at *Francofvrti.*

Kepler, Johann—*cont.* Auszführlicher Bericht / Von dem newlich ... erschienenen Haarstern / oder Cometen / ... Sampt ... wolgegründetem Discurs. Was eigentlich die Cometen seyen / woher sie kommen / ...

1 woodcut, 20 ff., last blank, 4° *Hall in Sachsen*, 1608.

Title in woodcut border.

— Astronomia nova Αιτιολογητος, sev physica coelestis, tradita commentariis de motibvs stellæ Martis, Ex observationibus G. V. Tychonis Brahe: ... 19 ff. + 337 pp. fol. *Pragæ*, 1609

Diagrams in text.

— Ioannis Kepleri ... Dissertatio Cum Nvncio Sidereo nuper ad mortales misso *à Galilæo Galilæo.* 34 pp. + 4 ff. 4° *Pragæ*, 1610

— Ioannis Keppleri Harmonices Mvndi libri V. ...

3 + 1 plates, 4 ff. + 66 + 255 pp. fol. *Lincii Austriæ*, 1619.

Diagrams in text.

— De Cometis libelli tres. I. *Astronomicvs*, ... II. *Physicvs*, ... III. *Astrologicvs*, ...

2 woodcuts, 3 tables, 4 ff. + 138 pp. 4° *Avgvstæ Vindelicorvm*, 1619.

Compare page 98.

The third part was printed in 1620.

— Prodromus dissertationvm cosmographicarvm, *continens* Mysterivm Cosmographicvm de admirabili proportione orbium cœlestium: deque causis cœlorum numeri, magnitudinis, motuumque periodicorum genuinis & propriis, *Demonstratum per quinque regularia corpora Geometrica.*... Nunc vero post annos 25. ... recognitus, ... Addita est erudita Narratio M. Georgii Ioachimi Rhetici, de Libris Reuolutionum ... D. Nicolai Copernici. *Item, Eiusdem* Ioannis Kepleri *pro suo Opere Harmonices Mundi* Apologia ...

4 woodcuts, 4 ff. + 163 pp. fol. *Francofvrti*, 1621

Diagrams in text.

The *Harmonices Mundi Apologia* is wanting.

— Ioannis Kepleri Mathematici, pro svo opere Harmonices Mvndi Apologia. Adversvs Demonstrationem Analyticam Cl. V. D. Roberti de Fluctibus ... 50 pp. fol. *Francofvrti*, 1622

Woodcut on title.

Kepler, Johann—*cont.* Joannis Kepleri ... Chilias Logarithmorum ad totidem numeros Rotundos, *Præmissâ Demonstratione legitima Ortus Logarithmorum eorumque usus* Quibus nova traditur arithmetica, ... [... Supplementum Chiliadis Logarithmorum, *Continens* Præcepta de eorum usu, ...]

1 table, 216 pp. 4° *Marpurgi* [*Marpvrgi*] 1624, '25.

— Tabvlæ Rudolphinæ. *Qvibvs Astronomicæ Scientiæ, temporum longinquitate collapsæ* Restauratio *continetur;* A Phœnice illo Astronomorum Tychone... primum animo concepta et destinata anno Christi MDLXIV ... Tabulas ipsas ... ex fundamentis Observationum relictarum; ad exemplum ferè partium iam exstructarum ... continuavit; ...

8 ff. + 120 + 119 pp. fol. *Vlmæ*, 1627

— Epistolæ ad Joannem Kepplerum ... scriptæ; insertis ad easdem responsionibus Kepplerianis, ... opus novum ... nunc primum cum præfatione de Meritis Germanorum in Mathesin, introductione in Historiam Literariam sæculorum XVI. et XVII. et Jo. Keppleri Vita...ex manuscriptis editum. [By Michael Gottlieb Hansch.]

8 plates, 8 ff. + xxxvii. pp. + 6 ff. + 704 pp. [*Lipsiæ*] *CIↃIↃCCXIIX.* [1718].

Plate on title.

— * Life of Kepler. 54 pp. 4° [*London*, 1819]

Diagrams in text.

Written by J. E. Drinkwater; it contains a list of Kepler's published Works.

— Joannis Kepleri astronomi opera omnia. Edidit Ch. Frisch. Volumen I. [-VIII.] 8 vols.

8° *Frankofurti a. M. et Erlangae*, 1858, '59, '60, '63, '64, '66, '68, '70.

— Johann Keppler und die Harmonie der Sphären Vortrag gehalten ... von W. Förster.

42 pp. 8° *Berlin*, 1862

— * Notice sur la vie et les travaux de Kepler par M. Bertrand. 38 pp. 4° *Paris*, 1866

— Johannes Kepler. Vier Bücher in drei Theilen. Von Dr. Edmund Reitlinger, unter Mitwirkung von C. W. Neumann, und dem Herausgeber C. Gruner. Mit vielen Illustrationen. Erster Theil.

Portrait, 1 photo., xvi. + 224 pp. 8° *Stuttgart*, 1868.

Kepler, Johann—*continued.* Johann Kepler. Eine Festrede gehalten auf Anlasz der dreihundertjährigen Feier von Kepler's Geburtstage am 16. Januar 1872 ... zu Berlin. Von Dr. W. Förster.
25 pp. 8° *Berlin*, 1872

— * Ungedruckte wissenschaftliche Correspondenz zwischen Johann Kepler und Herwart von Hohenburg. 1599. Ergänzung zu: Kepleri opera omnia, ed. Chr. Frisch. Nach den MSS. zu München und Pulkowa edirt von C. Anschütz.
118 pp. 8° *Prag*, 1886

— [Photograph of the portrait of Kepler in the Observatory at Kremsmünster, belonging to the family Kepler.] 10¼ in. × 8¼ in., s.l., s.a.

— *See* Brahe, T., 1872.
Fischer, E. G.
Galilei, G.
Gassendi, P.
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Kerr, Daniel: * Chronology of the Kingdoms of Israel and Judah. 17 pp. 8° s.l., 1849

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Portrait, 5 ff. + 323 pp., 2 ff. + 416 pp. fol. *London*, 1673, '74.

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Ketteler, Ed.: Beobachtungen ueber die Farbenzerstreuung der Gase. Abhaengigkeit der Fortpflanzung des Lichtes von Schwingungsdauer und Dichtigkeit. ...
1 plate, 90 pp. 8° *Bonn*, 1865

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vi. + 274 pp. 8° *Bonn*, 1873

— * Versuch einer Theorie der (anomalen) Dispersion des Lichtes in einfach und doppelt brechenden Mitteln. 38 pp. 8° *Bonn*, 1876

Khunrath, Heinrich: Amphitheatrvm sapientiæ æternæ, solivs veræ, christiano-kabalisticvm, divino-magicvm, nec non physico-chymicvm, tertrivnvm, catholicon: ...
Portrait, 9 plates, 2 tables, 60 + 222 pp. + 1 f. fol. [*Colophon*]: *Hanoviæ ... MDCIX.*
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Kies, Johann: De Parallaxi longitvdinis atqve latitvdinis planetarvm ...
1 plate, 12 pp. + 2 + 12 ff. tables, 4° *Tubingæ*, 1756.

— De Ratione Pondervm in svperficiebvs solis et planetarvm ...
1 plate, 16 pp. + 2 ff. 4° *Tvbingae*, 1757

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— De Inflvxv Lvnæ in partes terrae mobiles. ...
1 plate, 24 pp. 4° *Tvbingæ*, 1769

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— Thesivm inavgvralivm pars mathematico-physica ... 8 pp. 4° *Tvbingæ*, 1775

— De Theoremate Cotesiano ad illvstrandam sectionem de inveniendis factoribvs trinomialibvs analyseos infin. Kaestner. ...
1 plate, 18 pp. 4° *Tvbingae*, 1777

— De Motv Satellitvm circa svos planetas primarios et circa solem in orbe vnico sev epicycloide. ...
1 plate, 3 ff. + 38 pp. 4° *Tvbingæ*, 1778

Kilgour, Henry: Truth unveiled. ...
24 pp. 8° *Edinburgh*, 1876

Kinahan, John Robert: * On a proposed Scheme for a Uniform Mode of naming Type-Divisions.
5 pp. 8° *Dublin* [1858]

Kindermann, Eberhard Christian: Astronomische Beschreibung und Nachricht von dem Cometen 1746. ...
1 plate, 14 pp. 4° *Dreszden*, 1746
See page 132.

King, Alfred: *See* Hartnup, J.

King, J.: An essay, or attempt, towards establishing a new Universal System of Arithmetic; Division of the Year, Circle, and Hour; ... The second edition.
1 plate, viii.+55 pp. 8° *Buckingham*, 1808
On the Octonary System.

Kinglake, Alexander William: Mr. Kinglake and the Quarterlys. By an Old Reviewer.
67 pp. 8° *London*, 1863

Kipping, Robert: Rudimentary treatise on masting, mast-making, and rigging of Ships. ... Together with an Appendix of dimensions of masts ... Illustrated with numerous woodcuts.
1 plate, xii.+149 pp. 12° *London*, 1853-4

Kirby, John Josuah: Dr. Brook Taylor's Method of Perspective, compared With the Examples lately publish'd on this Subject as Sirigatti's, by Isaac Ware, ...
7 plates, vii.+35 pp. 4° *London* [1757]

Kirch, Christfried: Observationes Astronomicæ selectiores, in observatorio regio Berolinensi habitæ, quibus adjectæ sunt annotationes quædam et animadversiones geographicæ & chronologicæ, ...
1 plate, 4 ff. + 80 pp. 4° *Berolini*, 1730

— Merckwürdige Himmels-Begebenheiten, So sich im 1736. Jahr zutragen werden, ...
2 plates, 60 pp. 4° *Berlin*, 1736

Kirch, Gottfried: Neue Himmels-Zeitung / Darinnen ... von den zweyen neuen grossen im 1680. Jahr erschienenen Cometen / ... Bericht zu finden: ... [Erster Theil. Anderer Theil.] 2 parts.
5 plates, 4 ff.+144 pp. 4° *Nürnberg*, 1681

— * Kurtzer Bericht von dem hellen Lichte / welches den 4. Julii / ... Anno 1682. in Leipzig am Himmel gesehen worden.
3 pp. 4° [*Leipzig*, 1682]
From G. Kirch's *Christen- Jüden- und Türcken-Kalender* for 1683.
Seems to have been a large bolide.

Kirch, Maria Margaretha: Vorbereitung / zur grossen Opposition, Oder Merckwürdige Himmels-Gestalt im 1712. Jahre ...
1 plate, 24 pp. 4° *Cölln an der Spree* [1711]
Contains an account of the outbreak of Santorin in 1707, &c.

[Kircher, Adolphe]: Nouvelle Théorie des Parallèles, avec un appendice Contenant la manière de perfectionner la Théorie des Parallèles de A. M. Legendre.
1 plate, 64 pp. 8° *Paris*, An XI—1803

Kircher, Athanasius: Ars Magnesia, Hoc est disqvisitio ... de natvra, viribvs, et prodigiosis effectibvs magnetis, ... [Pars I. Pars II.]
4 ff.+62 pp. 4° *Herbipoli*, 1631
Woodcuts in text.

Kirchhoff, Gustav: Untersuchungen über das Sonnenspectrum und die Spectren der chemischen Elemente. I. [II.] Theil ... Dritter Abdruck. 3 plates, 43 pp. / 2 plates, 16 pp. } 4° *Berlin*, 1866, '75

— Vorlesungen über mathematische Physik.
ix.+466 pp. 8° *Leipzig*, 1876

— * Zur Theorie der Lichtstrahlen.
29 pp. 8° *Berlin*, 1882

Kirkman, Thomas P.: * On the K-partitions of the R-gon and R-ace. 56 pp. 4° *London*, 1856

— * On Autopolar Polyedra.
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— On the Partitions of the R-Pyramid, being the first class of R-gonous X-edra.
17 pp. 4° *London*, 1857

— * On the Theory of the Polyedra.
15 pp. 8° *London*, 1861

— * The same. 45 pp. 4° *London*, 1862

Kirwan, Richard: * Of Chymical and Mineralogical Nomenclature. 26 pp. 4° *Dublin*, 1800

— * Observations on the Proofs of the Huttonian Theory of the Earth, adduced by Sir James Hall, Bart. 27 pp. 4° *Dublin*, 1800

— * An illustration and confirmation of some facts mentioned in an essay on the Primitive State of the Globe. 8 pp. 4° *Dublin*, 1800

Kitchiner, William: The Economy of the Eyes: Precepts for the improvement and preservation of the Sight. ...
2 plates, viii. + 246 pp. 8° *London*, 1824

— The Economy of the Eyes. — Part. II. Of Telescopes; being the result of thirty years' experiments ... To which are added, An Abstract of the Practical Parts of Sir Wm. Herschel's Writings on Telescopes and Double Stars, &c.; ...
1 plate, xi.+485 pp. 8° *London*, 1825

Klausing, Heinrich: De Mathesi nova non nova,...
17 ff. 4° [*Vitembergae Saxonum*] 1701

— De Infinito Mathematicorvm, tanqvam revera finito, ... 8 ff. 4° [*In fine*]: *Vitembergae*, 1716

Klausing, Heinrich—*continued.* Eclipsis Lvnaris nvper visa et observata Wittenbergae anno MDCCXVIII. die IX. Septembr....
2 plates, 22 pp. 4° [*Wittenbergae*] 1719

Klein, Hermann J.: Populäre astronomische Encyclopädie. ... Mit 58 Holzschnitten.
vi.+480 pp. 8° *Berlin*, 1871

— Handbuch der allgemeinen Himmelsbeschreibung vom Standpunkte der kosmischen Weltanschauung. Der Fixsternhimmel.
1 plate, x.+373 pp. 8° *Braunschweig*, 1872

— * Über einige vulcanische Formationen auf dem Monde. 4 pp. 4° *Gotha*, 1882

Kleinschmidt, Johann Georg: *See* Boccius, H.

Kletke, C. A.: De polygonorum regularium aequationibus libros II. ... scripsit ...
1 plate, iv.+74 pp.+3 ff. 4° *Vratislaviae*, 1833

— Entwickelung des Keplerschen Problems: ...
1 plate, 36 pp. 4° *Breslau*, 1852

Klinkerfues, Ernst Friedrich Wilhelm: * Über Bahnbestimmungen von Planeten und Cometen aus verschiedenen Combinationen von Beobachtungen. 44 pp. 4° *Göttingen*, 1862

— * Ueber Bestimmung der absoluten Störungen mit Rücksicht auf die Bahnen von grosser Excentricität und Neigung.
34 pp. 4° *Göttingen*, 1863

— Theoretische Astronomie.
xii.+473 pp. 8° *Braunschweig*, 1871

— * Ueber einen grossen Sternschnuppenfall aus dem Jahre 524 n. Chr. und seinen muthmasslichen Zusammenhang mit dem Cometen von Biela und dem des Jahres 1162.
1 plate, 22 pp. 8° *Göttingen*, 1873

— Kurze Beschreibung ... des Klinkerfues'schen Patent-Hygrometers ... Dritte Auflage.
1 plate, 15 pp. 12° [*Göttingen*, 1876]

— Die Prinzipien der Spectral-Analyse und ihre Anwendung in der Astronomie.
42 pp. 8° *Berlin*, 1879

— Ueber die Kometen-Erscheinungen von 371 v. Chr., 1668, 1843 I und 1880 I.
11 pp. 8° *Göttingen*, 1880

— * Ueber die Auflösung der Lambert'schen Gleichung für parabolische Bewegung.
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— * The late Professor Klinkerfues.
5 pp. 4° *Dublin*, 1884
Obituary notice by Ralph Copeland.

— *See* Huggins, W.
Kobold, H.
Mädler, J. H.

— **Klügel, Georg Simon**: De ratione qvam inter se habent in demonstrationibvs mathematicis Methodvs Synthetica et Analytica ...
xxviii. pp. 4° *Helmstadii*, 1767

— Analytische Dioptrik in zwey Theilen. ...
4 plates, 12 ff.+304 pp. 4° *Leipzig*, 1778

— Mathematisches Wörterbuch oder Erklärung der Begriffe, Lehrsätze, Aufgaben und Methoden der Mathematik ... [angefangen] von Georg Simon Klügel [fortgesetzt von Carl Brandan Mollweide, und beendigt von Johann August Grunert]. Erste Abtheilung. Die reine Mathematik. Erster [-Fünfter] Theil. 6 vols.
8° *Leipzig*, 1803, '05, '08, '23, '31, '31
The fifth part consists of two volumes.

— Supplemente zu Georg Simon Klügels Wörterbuche der reinen Mathematik. Herausgegeben von Johann August Grunert. Erste [Zweite] Abtheilung. 2 vols. 8° *Leipzig*, 1833, '36

Knauer, Johann Oswald: Dissertatio de argvmento contra propagationem Luminis svccessivam ab eclipsibvs lvnae et solis petito ...
1 woodcut, 11 ff. 4° *Lipsiae*, 1714

Knauer, Mauritius: Immerwährender curieuser Haus-Calender, ...
126 pp.+1 f. 8° s.l., s.a. "*Gedruckt in diesem Jahr.*"
Woodcuts in text.

Knight, Cameron: The Mechanician and Constructor for Engineers, comprising forging, planing, lining, slotting, shaping, turning, screw-cutting, &c. ...
96 plates, 397 pp. 4° *London*, 1869

Knight, Charles: * Mural records of pedestrian tourists. 10 pp. 8° *London*, 1866

— * Zadkiel's Almanac. 4 pp. 8° *London*, 1866

Knight, Gowin: An Attempt To demonstrate, That all the Phænomena in Nature May be explained by Two Simple Active Principles, Attraction and Repulsion: ...
95 pp. 4° *London*, 1748

— The same. 95 pp. 4° *London*, 1754

Knight, Henry: Multiplication Tablets: derived from a theorem of S. Slonimski.
12 pp.+11 ff. 8° *Birmingham*, 1847

Knight, Thomas: * A new demonstration of the binomial theorem. 4 pp. 4° *London*, 1816

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11 pp. 4° *London*, 1811

Knobel, Edward Ball: * Notes on a Paper entitled "An Examination of the Double-Star Measures of the Bedford Catalogue," by S. W. Burnham, Esq. 26 pp. 8° *London*, 1880

Knoblauch, Hermann: * Investigations on Radiant Heat. 2 memoirs. 50+52 pp. 8° *London*, 1852

Knoch, Wichmann Karl: *See* Beselin, L.

Knorre, Karl Friedrich: Der Ort des Sternes δ Ursae minoris für jeden Tag der Jahre 1823-1830 berechnet aus Bessels Tafeln.
36 pp. 4° *Nicolajew*, 1824

— * Gutachten über das Werk des Herrn Prof. Dr. Sawitsch: Приложеніе практической Астрономіи къ Географическому опредѣленію мѣстъ, ...
36 pp. 8° *St. Petersburg*, 1846

Knorre, Martin: De solidorum æqvilibrio, ...
1 plate, 6 ff. 4° *Lipsiæ*, 1687

Knorring, Franz von: Linearum atque superficierum theoria analytice exposita.
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Incomplete.

Knott, George: * Micrometrical Measures of Double Stars. 32 pp. 4° *London*, 1883

Knott, George, and Baxendell, Joseph: On the method of observing Variable Stars.
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Printed for private circulation.

Knox, George: * Observations on Calp.
10 pp. 4° *Dublin*, 1801
"Calp" is a kind of limestone.

Knox, John: * On some phenomena of colours, exhibited by thin plates.
3 plates, 21 pp. 4° *London*, 1815

[Knüppeln, —]: Mathematischer Beweis dasz Pandora bey Eröfnung ihrer Schiksals-Büchse, auch öfters geometrisch zu Werke gehe, ...
16 pp. 4° [*Marienwerder*] 1790

Kobold, Hermann: Klinkerfues'sche Constanten zur Reduction auf den scheinb. Ort für ... 1880.
3 ff. fol. *Göttingen*, 1880
MS.

— The same for 1881, '82, '83.
21, 21, 19 pp. 4° *O'Gyalla*, 1880, '81, '82
Lithographed.

— The same for 1884.
14 + 1 pp. 8° *Göttingen*, 1883

— *Beitrag zur Kenntniss der Rotationselemente Jupiters. 1 plate, 12 pp. 4° *Dublin*, 1881

— * Das Positionsringmikrometer.
7 pp. 4° *Dublin*, 1881

— * Beobachtungen von Sonnenflecken am Astrophysicalischen Observatorium zu O'Gyalla.
2+4+6 pp. 4° *Dublin*, 1882

Köbel, Jacob: Ein new geordenet Künstlich Rechennbüchlin / Jacob Köbels / ... Auff den Linien vnd Spacien / mit Rechenpfeñingen. ... Mehr dañ vormals ie getruckt / gebessert / vnd zugesetzt. ... Visir Büchlin ... Wie mañ ein Visirrut machen / vnnd damit ein iedes vasz visirenn solle / Zu ende dises Rechenbuchlins angehenckt.
cxii. ff. 8° [*In fine*]: ¶ *Getruckt zu Franckenfurt / am Mein. ... Bei Christian Egenolffen. ... M.D.XXXI. Jar.*
Diagrams in text.

— GEometrei / Vonn künstlichem Messen vnnd absehen / allerhand höhe / fleche / ebene / weite vnnd breyte / ... mit künstlich zubereiten Jacobstab / Philosophischen Spiegel / Schatten / vnnd Meszruten / ...
28 ff. 4° s.l. [*In fine*]: ¶ *End.* 1536
Two woodcuts on title. Many woodcuts in text.

— Astrolabii declaratio, eivsdem*que vsus mire iucundus, nō modo Astrologis ... necessarius: verum etiam Mechanicis ... non parum commodus: ... Cui accessit Isagogicon in Astrologiam iudiciariam.*
32 ff., last blank, 8° *Parisiis, Apud Ioannem Lodoicum Tiletanum ex aduerso Collegij Remensis. M.D.XLV.*
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— Zusätze zu den Logarithmischen und Trigonometrischen Tabellen ...

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Sheet, 19⅝ in. × 15⅛ in. [*In fine*]: *Regio diplomate prohibetur nominum huius figuræ immutatio, sub poenâ indignationis; et exemplarium quæcunque effictio sub poenâ confiscat*is *et trium florenor Dato Brux. 3. Martij 1645. Ro. vt. Gottignies.*
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— Eclipsivm omnivm ab anno domini 1554. vsqve in annvm ... 1606. accurata descriptio & pictura, ...

112 ff. fol. [*Colophon*]: *Avgvstae Vindelicorvm, ... M.D.LVI.* ...

Each eclipse is illustrated by a diagram and a *celestial figure.*

— Ephemeridvm novvm atqve insigne opvs ab anno domini 1556. vsq$_{b}$ in 1606. accuratissimè supputatum: cui ... accesserunt. I Eclipsivm typi elegantissimi. II Expedita ratio constitvendi coelestis thematis, cum tabulis, ... III Brevis ratio geneses ivdicandi, ... IIII Loca stellarvm fixarvm ab anno domini 1349. vsq$_{b}$ in 2029. ... V Themata qvatvor anni temporvm,... 2 vols. in one.

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Full-page arms of the *Count Palatine Otto Heinrich* in vol. I., and *Insignia familiæ Leovitiorvm* in the second volume.

— De Conivnctionibvs magnis insignioribvs svperiorvm planetarum, Solis defectionibus, & Cometis, in quarta Monarchia, cum eorundem effectuum historica expositione. ... Hic accessit, ab anno Domini. 1564. in viginti annos sequentes, prognosticon, In quo quid planetæ de proximo totius orbis Interitu portendant apertè ostenditur. Item pij cuiusdam viri, de stella quæ citra naturæ ordinem proximo mense Decembri aparuit epigrammate conclusum Iudicium.

44 ff. 4° *Londini, ex officina Thomæ Vantrouillerij Anno.* 1573.

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4 ff. 4° *Impressum LAVINGÆ ad Danubium. M.D.LXXIII.*

This is the original tract written 20 Feb. 1573. It was reprinted the same year with a treatise by C. Gemma, s.l., but probably at Copenhagen. Tycho Brahe also reproduces it in his *De Nova Stella Anni 1572.* In both reprints however the marginal commentary is suppressed, in which alone occurs the statement *Descriptio huius Cometæ desumpta est ex antiquo codice, manu scripto,* referring to supposed earlier appearances of the New Star.

— *De nova stella* jvdicia dvorvm præstan*tivm mathematicorvm. D. Cypriani Leovitii a Leonicia. et D. Cornelii Gemmæ, Professoris regij Louaniensis.* Addita svnt de eadem epigrammata *quædam lectu dignissima.*

8 ff. 4° s.l., 1573

This tract, which seems to be a reprint of the treatises of Gemma and Leovitius, was probably brought out by Laurentius Benedictus in Copenhagen, as the ornament on the title is the same as that in Tycho Brahe's *De Nova et nvllivs ævi memoria privs visa stella.* The epigram by Th. Beza is repeated in Leovitius' *De Conjvnctionibvs magnis.*

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— Leybourn's Dialling improv'd: Or, The Whole Art perform'd, I., Geometrically: ... II. Arithmetically: ... By Henry Wilson.
12 plates, 6 ff.+276 pp. 12° *London*, 1721

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Madeweis, Friedrich: Nigellæ Cadmi Filiæ de Sydere Crinito, A. II. cIↃ IↃC LXXX. ... observato ... 4 ff. 4° *Berolini*, 1681

— Die Wieder-Erscheinung Der ungewöhnlich-grossen Stern-Ruthe / verstehe Des Neuen Cometen, ... 1 plate, 20 ff. 4° *Berolini*, 1681

Mädler, Johann Heinrich: Kurzgefasste Beschreibung des Mondes. Ein Auszug aus der grösseren Selenographie ...
1 plate, iv.+120 pp. 8° *Berlin*, 1839

— Leitfaden der mathematischen und allgemeinen physischen Geographie.
x.+221 pp. 8° *Stuttgart und Tübingen*, 1843

— Astronomische Briefe.
vi.+494 pp. 8° *Mitau*, 1844

— Die Centralsonne. 47 pp. 4° *Dorpat*, 1846

— Untersuchungen über die Fixstern-Systeme. Erster Theil. Die partiellen Systeme. [Zweiter Theil. Das allgemeine System.] 2 vols.
275+x.+241 pp. fol. *Mitau und Leipzig*, 1847, '48.
The author's copy, with many MS. additions.

— Populäre Astronomie. Vierte, völlig umgearbeitete Auflage. [Erläuterungen zu den Abbildungen ...]
20 plates, 1 table, xiv.+625+16 pp. 8° *Berlin*, 1849.

— * Sonne und Mond. 58 pp. 8° *Leipzig*, 1852
Forms the ninth volume of *Unterhaltende Belehrungen zur Förderung allgemeiner Bildung*.

— * Beiträge zur Fixsternkunde.
2 tables, 2 ff.+55 pp. 4° *Haarlem*, 1856

Mädler, Johann Heinrich—*cont.* Der Fixsternhimmel. Eine gemeinfassliche Darstellung ...
1 plate, vii.+193 pp. 8° *Leipzig*, 1858

— * Zur Kometenkunde. 19 pp. 8° *Altona*, 1860

— Der Himmel. Gemeinfassliche Darstellung des Wichtigsten aus der Sternkunde. ...
23 plates, ix.+255 pp. 4° *Hamburg*, 1869

— Reden und Abhandlungen über Gegenstände der Himmelskunde.
vi.+527 pp. 8° *Berlin*, 1870

— Geschichte der Himmelskunde von der ältesten bis auf die neueste Zeit. Erster [Zweiter] Band.
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— Der Wunderbau des Weltalls oder Populäre Astronomie. Siebente Auflage. Neu bearbeitet und vermehrt von ... W. Klinkerfues. Nebst einem Atlas ...
13 plates, 7 tables, viii.+748 pp. 8° *Berlin*, 1879.

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Hind, J. R.
Observatories. Dorpat.

Mänz, Nicolaus: Spektro-photometrische Untersuchungen an trüben Medien. Inaugural-Dissertation ... 1 plate, 50 pp. 8° *Marburg*, 1885

Magellan, Joao Hyazinthe de: Description et usages des nouveaux Barometres, pour Mésurer la Hauteur des Montagnes, ... (Appendice au traité "Sur les Octans & Sextans Marins" par de Magellan.)
1 plate, 2 ff.+2+78 pp. 4° *London*, 1779

Magini, Giovanni Antonio: Ephemerides coelestivm motvvm ... ad annos XL. Ab anno Domini 1581. ... Addita est eiusdem in Stadium animaduersio, ... *Item tractatus quatuor ... nempe Isagoge in ... Astrologiam, De vsu Ephemeridum, De annuis reuolutionibus, & De Stellis fixis.*
Portrait, 8+208 ff. 4° *Venetiis*, 1582
This volume comprises the *animadversio* and the *tractatus quatuor* without the ephemerides.

— Tabvla tetragonica, sev qvadratorvm nvmerorvm cvm svis radicibvs, Ex qua cuiuscunque Numeri perquàm magni, minoris tamen trigintatribus notis, Quadrata radix facilè, miraq; industria colligitur. 4+36 ff. 4° *Venetiis*, 1592

Magini, Giovanni Antonio—*continued.* Io. Antonii Magini ... De Planis Triangvlis Liber Vnicus. *Eiusdem* de Dimetiendi Ratione per Quadrantem, & Geometricum Quadratum *Libri qvinqve.* ...

4+114+2+124+4 ff. 4° *Venetiis*, 1592

Diagrams in text.

— Primvm Mobile Dvodecim Libris contentvm, In quibus habentur Trigonometria Sphæricorvm, et Astronomica, Gnomonica Geographicaq; *Problemata, ac pręterea* Magnvs Trigonometricvs canon ... *ac* Magna Primi Mobilis tabvla ...

7+290+182+21 ff. fol. *Bononiæ*, 1609

Engraved title. Diagrams in text.

— Ephemerides coelestivm motvvm ... Ab Anno Domini 1608. vsque ad Annum 1630.... Eiusdem Tractatus duo ... nempe Isagoge in Astrologiam, & De vsu Ephemeridum ... Atque etiam *Compendium Directionum* ... Vnà cum Quadrante Directorio ... & Quadrante motus Horarij Planetarum ... [... Quibus addita sunt eiusdem supplementum Isagogicarum Ephemeridum, ...]

2 plates, 16 in. × 13½ in., 536 ff. 4° *Venetiis*, 1609

The whole volume was not printed in 1609, for there are two extra titles headed *Continvatio Ephemeridvm* ..., dated 1607, while following the tables for 1620 is the colophon *Venetiis, MDCVI.* The actual ephemerides fill 347 ff.

— Svpplementvm Ephemeridvm, ac Tabularum Secundorum Mobilium, ... in qvo habentvr Ratio ... supputandi verum motum Solis, Lunæ, & Martis ex nouis Tabvlis ... *Correctio aliqua motuum ... Planetarum, ...* Compendium calculandarum Eclipsium ... *De Meridianorum differentia, cum responsione ad Origanum.*

8 ff.+311 pp. 4° *Venetiis*, 1614

These ephemerides all have the printer's device of the Burning Salamander.

— Carteggio inedito di Ticone Brahe, Giovanni Keplero e di altri celebri astronomi e matematici dei secoli XVI. e XVII. con Giovanni Antonio Magini ... pubblicato ed illustrato da Antonio Favaro.

Portrait, xiv.+522 pp. 8° *Bologna*, 1886

Magiotti, Raffaello: Renitenza certissima dell'acqva alla compressione ...

1 plate, 23 pp. 4° *Roma*, 1648

Magistrate, a: Public instruction and moral improvement. 57 pp. 8° *London*, 1846

Magistrini, Giambattista: Nuove ricerche sulla teorica, e sulle pratiche applicazioni della Percossa Idraulica.

2 plates, 84 pp. 4° *Bologna*, 1824

— *See* Lagrange, J. L.

Magnac, Aved de: Le Navisphère instrument nautique ... 8 pp. 8° *Paris* [1880]

— *See* Villarceau, Y.

Magnus, Gustav: * On the Force requisite for the production of Vapours.

5 pp. 8° *London*, 1846

— * Experiments on the Expansive Force of Steam. 1 plate, 17 pp. 8° *London*, 1846

Maignan, Emanuel: Perspectiva Horaria sive de Horographia gnomonica tvm theoretica, tvm practica libri qvatvor.

Frontispiece, 45 plates, 1 table, 13 ff.+705 pp. fol. *Romae*, 1648.

Many diagrams in text.

Mailly, Éd.: *See* Quetelet, L. A. J.

Main, Robert: * Address ... on the Presentation of the Gold Medal to Professor Hansen, for his Lunar Tables, ... 24 pp. 8° *London*, 1860

— Practical and spherical Astronomy, ...

xvi.+392 pp. 8° *Cambridge*, 1863

— Second Radcliffe Catalogue, containing 2386 stars; deduced from observations extending from 1854 to 1861, at the Radcliffe Observatory, Oxford; and reduced to ... 1860.

xx.+139 pp. 8° *Oxford*, 1870

Mairan, Jean Jacques d'Ortous de: * Traité physique et historique de l'Aurore Boréale.

15 plates, 4 ff.+281 pp. 4° *Paris*, 1733

— * The same. Seconde Édition, Revûe ...

17 plates, 6 ff.+570+xxij pp. 4° *Paris*, 1754

Maissiat, Michel: Table des projections des lignes de plus grande pente, ou Longueurs des Hachures, ... 1 plate, 12 pp. 12° *Paris*, 1819

Majendie, V. D.: Report of trial of "Fire-proof Gunpowder Magazines."

20 pp. 8° *London* [1872]

Majocchi, Giovanni Alessandro: * Istruzione per osservare l'ecclisse che accardà il giorno 8 luglio 1842. Terza edizione. 27 pp. 8° *Milano*, 1842

Majus, Theodor [Maius]: Kurtzer bericht Von dem Strobelstern Oder Cometen / ...
8 ff. 4° *Magdeburg* [1607]
Woodcut on title.

— Historische warhafftige Beschreibung / von den Cometen / Auch des erschrecklichen Newen Cometen Sterns / ...
12 ff. 4° *Magdeburg*, 1618
Woodcut on title.

— Zorn Ruthe. So der ewige Gott ... in gestalt eines Roth Fewrigen Sterns mit einem erschrecklichen langen Schwantz ... erzeiget / ...
14 ff. 4° *Magdeburg*, 1618
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Makowsky, A., und Tschermak, G.: * Bericht über den Meteoritenfall bei Tieschitz in Mähren.
5 plates, 18 pp. 4° *Wien*, 1878

Malatesti, Fulvio Viani de:
See Machometus Bagdedinus.

Malcolm, Alexander: A new System of Arithmetick, Theorical and practical. Wherein The Science of Numbers is demonstrated ...
xx.+623 pp. 4° *London*, 1730

Mallen, Rafael: Nuevos métodos astronómicos y regla geodésica de longitud invariable.
1 plate, viii.+71 pp. 8° *México*, 1884

Mallet, Anatole: * On mechanical traction upon Tramways. 51 pp. 8° *London*, 1878
English and French.

Mallet, Friedrich: Theoremata pro integrandis functionibus differentialibus linearum a circulo pendentium. 1 f.+31 pp. 4° *Upsaliæ*, s.a.

Mallet, Jacques André: * Observation du passage de Venus devant le disqve du soleil faite à Ponoi en Lapponie.
1 plate, 16 pp. 4° *Saint Pétersbourg*, 1769

Mallet, Robert: * Some Remarks upon Captain Blakely's, R.A., pretensions to Priority as original Discoverer of the principles, and Inventor of the methods, of constructing Ordnance in superimposed rings, with initial tension.
15 pp. 8° *Dublin*, 1860

— Remarks occasioned by Captain Blakely's written Version of his verbal Reply to Mr. R. Mallet's Paper of June 11, 1860.
9 pp. 8° *Dublin*, 1860

Mallet, Robert—*cont.* * Account of Experiments made at Holyhead ... to ascertain the Transit-Velocity of Waves, analogous to Earthquake Waves, ... 4 plates, 25 pp. 4° *London*, 1861

Malus, Étienne Louis: Théorie de la double réfraction de la lumière dans les substances cristallisées, ... 302 pp. 4° *Paris*, 1810

Manby, Charles: * Scheutz' Difference Engine, and Babbage's Mechanical Notation.
20 pp. 8° *London*, 1856

Manethon: Chronologie des deux premiers livres de Manethon. Par le Comte Jean Potocki. ...
32 pp. 4° *St. Pétersbourg*, 1805

Manfredi, Eustachio: Eustachii Manfredij ... De annuis inerrantium stellarum aberrationibus.
6 plates, 2 ff.+80 pp. 4° *Bononiæ*, 1729

Manfredi, Gabriello: De Constructione æquationum differentialium primi gradus ...
7 plates, 204 pp. 4° *Bononiæ*, 1707

Manfredi, Michele: Argomento fisicomattematico del Padre Gio: Battista Riccioli ... contro il moto divrno della terra, *Confermato di nuouo con l'occasione della Risposta alle Considerazioni* ... Fatte dal M. R. Fr. Stefano de gli Angeli. ... [Risposte ...] 4 ff.+93 pp. 4° *Bologna*, 1668

— *See* Angeli, St. d.

Mangili, Giuseppe: *See* Mascheroni, L.

Mangin, Alphonse: Notice sur le Périgraphe instantané. 1 plate, 1 photo., 2 ff. *Paris*, 1878
Lithographed.

Manilius, Marcus: M. Manilii astronomicon. primvs [-qvintvs].
72 ff. 4° s.a., sed circa 1472 [*In fine*]: *Ex officina Ioannis de Regiomōte habitantis in Nuremberga oppido Germanię celebratissimo.*
All the initials are illuminated. The type is arranged in 30-31 lines.
Hain 10703.

— M. Manilii asstronomicon. primvs. [-qvintvs.]
79 ff. 4° s.a., sed ante 1475 [*In fine*]: *Inpressum neapuli per. Iodocum boensteyn* ...
The initials left blank for illumination. 28 lines are on a page.
Hain 10704.

Manilius, Marcus—*continued.* Marci Manilii astronomicon liber primus incipit.
78 ff. 4° s.l., s.a., sed ante 1500
Blank spaces for several of the initials. A page consists of 28 lines.
Hain 10702.

Mann, Robert James: * An Address delivered ... at the annual General Meeting [of the Meteorological Society], ... [Report of the Council,...]
26 pp. 8° *London*, 1875

Mante, François Saluces de la: The Register of Time: or, a Perpetual Calendar.
26 pp. 4° *Southampton*, s.a.

Mantell, Gideon Algernon: A descriptive Catalogue of the objects of Geology, Natural History, and Antiquity, ... in the Museum ... at Brighton. Fourth Edition.
2 plates, 44 pp. 8° *London*, 1836

Marcet, François: * Note sur l'analyse de quelques substances végétales. 8 pp. 4° *Genève*, 1827

— *See* Rive, A. de la.

Marche, Caspar: Anmerckung Vnd Natürliche Gedancken / ... Von dem ... Auf Cometen-Art / ... erschienen Newen Stern / ...
16 ff. 4° *Stralsund*, 1653
Woodcut on title.

Marchetti, Alessandro: Della Natvra delle Comete ...
1 plate, 4 ff. + 110 pp. + 1 f. 4° *Firenze*, 1684

Marcus Marci, Ioannes: De Proportione Motvs *seu Regula sphygmica Ad celeritatem et tarditatem pulsuum ex illius motu ponderibus geometricis librato absq; errore metiendam.*
Portrait, 1 plate, 64 ff. 4° [*In fine*]: *Pragæ ... M.DC.XXXIX.*
Engraved title. Diagrams in text.

— Thavmantias. Liber De Arcv coelesti deqve Colorum Apparentium natura, ortu, et causis. ...
Portrait, 4 ff. + 268 pp. + 1 f. 4° [*In fine*]: *Pragae ... M.DC.XLVIII.*
Engraved title. Diagrams in text.

— Labyrintvs in quo via ad Circvli Qvadratvra pluribus modis exhibetur.
2 plates, 8 ff. + 120 pp. 4° *Pragæ*, on f. c 2 recto *GLorIa nata, & eo DefeCIt noMInIs anno, Proh fera fata! arens fLos CaDIt IMperII.* [1654]
Title taken from engraved frontispiece.

Mardon, Benjamin: * On the dates of the birth, ministry, and death of Jesus Christ.
3 pp. 8° [*London*] 1852

— * Farther remarks on the dates of the ministry and death of Jesus Christ.
2 pp. 8° *London*, s.a.

Maréchal, —: * Théorie physique et mathématique des Comètes.
1 plate, 49 pp. 8° *Metz et Paris*, 1845

Margetts, George: A general Table containing the true Horary Angle corresponding with the Altitudes of the Sun, Moon, and Stars; ...
8 pp. + 26 ff. 4° *London* [circa 1790]

Margollé, —, et Zurcher, F.: Les Météores. ... Deuxième édition.
vii. + 334 pp. 12° *Paris*, 1867

Marianini, Stefano: Saggio di esperienze elettrometriche. 206 pp. 8° *Venezia*, 1825

— * Saggio di esperienze elettrometriche ... [By G. Libri.] 9 pp. 8° *Venezia*, 1825

— * Sulla perdita di tensione che soffrono gli apparati Voltiani quando si tiene chiuso il circolo, e sul riacquistare ch'essi fanno la tensione primitiva quando si sospende la comunicazione fra i poli. 22 pp. 4° *Venezia*, 1827

— * Nuovo galvanometro moltiplicatore.
1 plate, 3 pp. 4° *Veneziâ*, 1827

— Memoria sopra la teoria chimica degli elettromotori voltiani. 63 pp. 8° *Venezia*, 1830

— * Nota sopra la facoltà elettromotrice del mercurio. 4 pp. 4° *Padova*, 1833

— * Sopra la teoria degli elettromotori. Memoria III. 11 pp. 4° *Padova*, 1836

— Memorie di fisica sperimentale ... Anno primo [-quarto] 1837 [-1840]. 4 years.
8° *Modena*, 1838, '38, '39, '41

Mariensuesis, Bartholomeus: Magnifico ⁊ generoso dño ladislao de Tschirnahoi ... Bartholõeꝰ Mariẽsuesꝫ Slesita de pascua: ... salutem pl'imã dicit.
[Begins]: ROgatus ... domie in lucem tibi expositionẽ fieri in ephemerides vl' in almanach siue tacuinuꝫ ... huic operi me subegi ...
10 ff. 4° s.l., s.a. [circa 1490]

Marinoni, Johann Jacob von: De Astronomica Specula domestica et organico apparatu astronomico libri duo ...

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MS. dedication of this copy to *Jos. Graf Von Harrach Rohrau* &c.

Mariotte, Edme: Oeuvres de M. Mariotte, ... comprenant Tous les Traitez ... Nouvelle édition. Tome premier [second]. 2 vols.

26 plates, 4 ff.+701 pp.+16 ff. 4° *La Haye*, 1740

Mariscotti, Berselli Giacomo: *See* Balassi, F. A.

Marius, Simon [Mayr]: Tabvlae directionvm novæ ...

1 table, 66 ff. 4° [*In fine*]: *Noribergæ* ... 1599

Marquez, Francisco de Paula: Memoria sobre el eclipse de sol de 18 de julio de 1860.

1 plate, 201 pp. 8° *Madrid*, 1861

Marre, Aristide: *See* Jaquemet, —.

Marsh, Benjamin J.: *The distinguishing features of Comets considered as phases of an electrical discharge resulting from excentricity of orbit.

11 pp. 8° *New Haven*, 1862

Marth, Albert: *A Memoir on the Polar Distances of the Greenwich Transit Circle.

27 pp. 4° *Altona*, 1860

— *On the Satellites of Mars. 6 pp. 4° *Kiel*, 1879

— *Ephemeris for Physical Observations of Jupiter, 1880-81. 14 pp. 8° *London*, 1880

— *Addition to the Ephemeris for Physical Observations of Jupiter. 8 pp. 8° *London*, 1880

— *Ephemeris for finding the Positions of the Satellite of Neptune, 1880-81.

2 pp. 8° *London*, 1880

— *Ephemerides of the five inner Satellites of Saturn 1881-82. 8 pp. 4° *Kiel*, 1881

— *Ephemerides of the five inner Satellites of Saturn (continued) and of the outer Satellite Japetus 1881-1882. 1 p. 4° *Kiel*, 1881

— *Remarks on an Apparatus for determining those Errors of astronomical Observations which are caused by the Flexures of an Instrument and by Defects in the Shape of its Pivots. 6 pp. 8° *London*, 1882

Marth, Albert—*continued.* *Ephemeris of the Satellites of Uranus, 1883.

5 pp. 8° *London*, 1882

— *Ephemeris for Physical Observations of Jupiter, 1882-83. Ephemerides of the Satellites of Saturn, August to November 1882. And Ephemeris of the Satellite of Neptune, 1882-83.

23 pp. 8° *London*, 1882

— *The same for 1883-84. 31 pp. 8° *London*, 1883

— *Addition to the Ephemeris for Physical Observations of Jupiter. On the Motion of the White Spot. And Ephemerides of the Satellites of Saturn, December 1882, to March 1883.

18 pp. 8° *London*, 1882

— *Ephemeris for finding the Positions of the Satellites of Mars, 1883-84.

4 pp. 8° *London*, 1883

— *Ephemeris for finding the Positions of the Satellites of Uranus, 1884.

3 pp. 8° *London*, 1883

— *Note on M. Loewy's communication referring to an apparatus for the determination of flexures. ... 16 pp. 8° *London*, 1884

— *Note on the Determination of the Planes of the Orbits of Jupiter's Satellites.

4 pp. 8° *London*, 1884

— *Ephemeris for Physical Observations of Mars, 1886. 6 pp. 8° *London*, 1885

— The same for 1888. 6 pp. 8° *London*, 1887

— *Addition to the Ephemeris for Physical Observations of Mars, 1886. Ephemeris of the Satellites of Uranus, 1886. 5 pp. 8° *London*, 1885

— *Note on the Transit of the Planet Mars and its Satellites across the Sun's disc, which will occur for the Planet Jupiter and its Satellites on April 13, 1886. Ephemeris of the Satellites of Mars, 1886. 7 pp. 8° *London*, 1886

— *Ephemerides of the Satellites of Saturn, 1886-87. 18 pp. 8° *London*, 1886

— *Ephemeris for Physical Observations of Jupiter 1887. 9 pp. 8° *London*, 1886

— *The same for 1888. 9 pp. 8° *London*, 1887

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9 pp. 8° *London*, 1886

— * The same for 1887-88. 20 pp. 8° *London*, 1887

— * On the Formulæ for Computing the Apparent Positions of a Satellite, and for Correcting the Assumed Elements of its Orbit.
14 pp. 8° *London*, 1887

— * On the Formulæ for Correcting Approximate Elements of the Orbits of Binary Stars.
15 pp. 8° *London*, 1887

Martin, Adolphe: * Théorie des instruments d'optique. Interprétation géométrique et continuation de la théorie des lentilles de Gauss.
2 plates, 71 pp. 8° *Paris*, 1867

Martin, Benjamin: Micrographia nova: or, a new Treatise on the Microscope, and microscopic Objects. ... To which is added, An Account of the Camera Obscura, ...
2 plates, viii.+62 pp. 4° *Reading*, 1742

— The Theory of Comets, illustrated, In Four Parts. ...
1 plate, 2 ff.+57 + 3 pp. 4° *London*, 1757
See page 101.

— The Nature and Construction of a Solar Eclipse explained and exemplified In that which will happen On April 1st, A.D. 1764. ...
1 plate, 16 pp. 4° *London* [1764]

— The Principles of Perspective ...
1 plate, 2 ff.+51 pp. 4° *London* [circa 1766]

— Horologia Nova; or, the New Art of Dialling in Theory and Practice ...
1 plate, 2 ff.+15 pp. 4° *London*, 1770

Martin, C. F.: Les Tables de Martin, ou le régulateur universel des calculs en parties doubles;...
3 tables, xxix.+843 pp. 8° *Paris*, 1817

Martin, Carl Roland: Behandling af teoremer angående tre plana räta liniers sammanträffande i en punkt, såsom bidrag till jemförelse mellan olika geometriska metoder. Akademisk Afhandling, ... 1 plate, 57 pp. 8° *Upsala*, 1868

Martin, Thomas: The Circle of the Mechanical Arts; containing practical treatises on the various manual arts, trades and manufactures. Illustrated by numerous Engravings.
vi.+616 pp. 4° *London*, 1813

Martin, Thomas Henri: * Mémoire où se trouve restitué pour la première fois le Calendrier lunisolaire chaldéo-macédonien dans lequel sont datées trois observations planétaires citées par Ptolémée. 1 table, 59 pp. 8° *Paris*, 1853

— *See* Hero Alexandrinus.

Martin, William: An attempt to establish throughout His Majesty's Dominions an universal Weight and Measure, dependant on each other,...
1 plate, vii.+39 pp. 4° *London*, 1794

Martin, W. A.: Screw-Cutting tables, ... Second edition. 16 pp. obl. 4° *London*, 1866

Martinet, Émile: Exposition universelle internationale de 1878 à Paris. Groupe II.—Classe 9. Rapport sur l'imprimerie et la librairie.
119 pp. 8° *Paris*, 1880

Martinez, Henrrico: Reportorio: de los tiempos, y historia natvral desta nveva espana. ...
1 woodcut, 186 ff. 4° *Mexico*, 1606
Woodcut on title as well as in text.
The paging runs to p. 277 but does not comprehend all the pages and is several times incorrect. There are six tracts, two of which treat on Astronomy.

Martini, Johann Matthias: *See* Karsten, J. G.

Martynowski, Jérôme: * Sur les transformées de l'équation du second degré à deux variables.
18 pp. 8° *Liège*, 1843

Mascheroni, Lorenzo: Géométrie du compas. Ouvrage traduit ... Par A. M. Carette.
14 plates, xxiv. + 263 pp. 8° *Paris*, An VI. (1798).

— Problemi di Geometria ... colle dimostrazioni aggiunte dal Cittadino Sacchi.
4 plates, 4 ff. + 165 pp. 8° *Milano*, Anno X. 1802.

— Elogio di Lorenzo Mascheroni ... dal Professore Giuseppe Mangili. 69 pp. 8° *Milano*, 1812

Maseres, Francis: The principles of the Doctrine of Life-Annuities; explained in a familiar manner, ... And accompanied With a Variety of New Tables ...
xxxvi.+726 pp. 4° *London*, 1783

— Scriptores Logarithmici; or a collection of several curious tracts on the nature and construction of Logarithms, ... Together with some tracts on the Binomial Theorem ... Volume I. [-VI.] 6 vols.
4° *London*, 1791, '91, '96, 1801, '04, '07

Maseres, Francis—*continued.* Tracts on the Resolution of Affected Algebraick Equations by Dr. Halley's, Mr. Raphson's, and Sir Isaac Newton's, methods of approximation.
lxxviii.+479 pp. 8° *London*, 1800

— Tracts on the Resolution of cubick & biquadratick Equations.
lxi. + 599 pp. 8° *London* [1803]

Masetti, Agostino: Memorie ... sul modo di riparare gli argini de'fiumi.
45 pp. 8° *Mantova*, 1810

Masetti, Giovambatista: Note ed aggiunte agli elementi di meccanica e d'idraulica del Professore Giuseppe Venturoli. Vol. I. [II.] 2 vols.
6 plates, 5 ff.+322+383 pp. 8° *Bologna*, 1827

Ma'shar, Abu: هذا كتاب المحقق المدقق اليوناني الفيلسوف الشهير بابي معشر الفلكى
86 pp. 8° [*Cairo*, a.h. 1288 (1871)]
Small woodcuts on margin.
"This book is by the distinguished Greek philosopher Abu Ma'shar, the great astronomer ..."

Masius, Didacus: Metaphysica dispvtatio de ente, et eivs proprietatibvs, Quæ communi nomine inscribitur, *De Transcendentibvs: In quinque Libros distributa.*
4 ff.+268 pp.+2 ff. 4° *Coloniar* [sic] 1623
Printer's device on title.

Maskelyne, Nevil: Tables Requisite to be used with the Astronomical and Nautical Ephemeris....
2 tables, 162 pp.+index, 8° *London*, 1766
There is a break of 21 pp. before p. 129.

— An Account of the Going of Mr. John Harrison's Watch, at the Royal Observatory, from May 6th, 1766, to March 4th, 1767. Together with The Original Observations and Calculations of the same. 28+lvi. pp. 4° *London*, 1767

— The principles of Mr. Harrison's time-keeper, with plates of the same. ...
10 plates, 31 pp. 4° *London*, 1767

— *Instructions Relative to the Observation of the ensuing Transit of the Planet Venus ... on the 3d of June 1769. [Use of the Astronomical Quadrant ...] 44 pp.+2 ff. 8° *London*, 1768

[—] *Tables for facilitating the solution of a very useful problem, for finding the Latitude of a Ship at sea; ... 77 pp. 8° *London*, 1769

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14 ff. 4° *Gedruckt zu Nürmberg / durch Nicolaum Knorn.* s.a.
Interleaved with 2 ff. of writing paper for each month, on which a fragmentary diary for 1573 has been kept, apparently in Coburg. There are a few notes about the weather, but apparently nothing about *Nova Tychonis* which was then visible.

— Prognosticon Oder Practica Teutsch / Auff die vier Zeiten ... / Finsternussen / ... Auff das Jar ... 1582. ... 12 ff. 4° *Nürnberg*, s.a.
Woodcuts of Saturn and Mars on the titlepage.

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Medigo Cretensis, Josef (Salomo) del: אילם (*sic*) [*Elim* Epistola et Quaesita mathematica Serach b. Natan Karaei etc. cum responsis, ...]
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The portrait, engraved by W. Delff, bears the legend *Ioseph del Medico Cretensis philosophus et medicus æt. XXXVII. anno M.D.C.XXVIII.*

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Medina, Pietro da: L'Arte del navegar, in laqval si contengono le regole, de chiarationi, secreti, & auisi, alla bona nauegation necessarij ... tradotta de lingua Spagnola in volgar Italiano ...
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Meister, Albert Ludwig Friedrich: Errorvm qvi a sitv instrvmenti non librato angvlorvm mensvram ingredivntvr censvm habet ...
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Melanchthon, Philipp: *See* Purbach, G., 1536.
Sacrobosco, J. de.

Melander, Daniel: *See* Newton, I., 1762.

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— Dissertatio gradualis de Compositione et Resolutione Rationum, quam ... offert Petrus Saxholm ... 1 plate, 18 pp. 4° *Upsaliæ*, 1760

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— Dissertationem gradualem, De determinando statu permanentiæ, e dato præcedenti motorum seu fluentium, ... publico examini offert Otto Lindberg ... 1 plate, 12 pp. 4° *Upsaliæ*, 1763

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1 plate, 28 pp. 4° *Napoli*, 1840

— * On the Cause of the Differences observed in the Absorbing Powers of Polished and of Striated Metallic Plates, and on the application of these Principles to the Improvement of Calorific Reflectors. 6 pp. 8° *London*, 1843

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Contains a list of Melloni's publications.

Melsens, Louis Henri Frédéric: * Notice sur le coup de foudre de la gare d'Anvers du 10 juillet 1865. 4 plates, 32 pp. 8° *Bruxelles*, 1875

— Quatrième note sur les paratonnerres.
1 plate, 23 pp. 8° *Bruxelles*, 1875

— * De l'application du rhé-électromètre aux paratonnerres des télégraphes.
2 plates, 22 pp. 8° *Bruxelles*, 1877

— Ville de Bruxelles. Des paratonnerres à pointes, à conducteurs et à raccordements terrestres multiples.
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— * Cinquième note sur les paratonnerres.
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Menabrea, Luigi Federigo: *Calcul de la densité de la terre suivi d'un mémoire sur un cas spécial du mouvement d'un pendule.
2 plates, 76 pp. 4° *Torino*, 1840

— * Sketch of the Analytical Engine invented by Charles Babbage. With notes by the Translator. [Lady Lovelace]
1 table, 66 pp. 8° *London*, 1843

— * Mémoire sur la série de Lagrange.
40 pp. 4° *Turin*, 1844

— * Mémoire sur les Quadratures.
41 pp. 4° *Turin*, 1844

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— * Lois générales de divers ordres de phénomènes dont l'analyse dépend d'équations linéaires aux différences partielles tels que ceux des vibrations et de la propagation de la chaleur.
47 pp. 4° *Turin*, 1855

— * Nouveau Principe sur la Distribution des tensions dans les systèmes élastiques.
5 pp. 4° *Paris*, 1858

— * Étude de statique physique. Principe général pour déterminer les pressions et les tensions dans un système élastique.
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— *See* Babbage, C., 1843.
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Genocchi, A., 1873.

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xxii.+410+73 pp. fol. *Madrid*, 1800

— Coleccion completa de Tablas para los usos de la navegacion y astronomía náutica ... Edicion ... corregida y aumentada, dispuesta por ... Juan José Martinez ...
Portrait, xi. pp.+3 ff.+548 pp. 4° *Madrid*, 1850

Menher de Kempten, Valentin: Arithmetiqve seconde par M. Valentin Mennher de Kempten. [Seconde Partie de ce Liure, laquelle traicte de la Regle d'Algebre,] [La Troisiesme partie de ce Liure qui traicte de la Geometrie par plusieurs questions nouuelles.]
92 ff. 8° [*In fine*]: *Imprimé en Anuers par Ian Loë l'An* ... 1556 ...

Woodcut on the title, on the *verso* of which is a portrait, presumably of the author, with the legend *Frum frisch frey 1556.*

This author is called *Menher* or *Mennher* by bibliographers, but it seems doubtful if this is not merely an old form of the style *Myn Heer.*

Menius, Matthias: Prognosticon Astrologicvm. Uber die Reuolution des künfftigen Jares CHRisti / M.D.LXXXII. ...
16 ff. 4° *Königsperg*, s.a.

Two woodcuts on title.
Printed in red and black, with blank spaces for memoranda.

Menk, Victor Mekarski von: Skizzirte Andeutungen über willkürliche Ortsveränderungen in den freien Welträumen ...
31 pp. 8° *Leipzig*, 1836

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Incomplete: pp. 1-140 of a modern book on Astrology.

Merbitz, Johann Gotthelff: Dissertatio Academica, Σκιαγραφιαν sphæræ armillaris exhibens, ...
12 ff. 4° *Lipsiæ*, 1702

Mercator, Gerhard: Orbis Terrae novissima descriptio. Map, 13 in. × 20 in., s.l., 1602

— Gerhard Kremer gen. Mercator, der deutsche Geograph. Vortrag von Dr. Breusing, ... gehalten zu Duisburg am 30. März 1869. ...
61 pp. 8° *Duisburg*, 1869

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$$\frac{1}{\sqrt{1-n^2}}\left(\frac{1-\sqrt{1-n^2}}{n}\right)^{2u}, \quad \frac{1}{\sqrt{1-n^2}}\left(\frac{1-\sqrt{1-n^2}}{n}\right)^{2u+1}.$$

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Modern figures and vulgar fractions are used throughout.

— ¶ Tractado subtilissimo d'arismetica y geometria Cõpuesto por ... fray Juã de Hortega agora de nueuo emendado ... por Juan Lagarto, y antes por Gõçalo Busto ... Va añadido en esta postrera impressiõ vn tractado de bachillero Iuã Perez de Moya. ...

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3 plates, 10 in. × 10 in., s.l., s.a.

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— * Verhandeling over de werkzaamheden en onderzoekingen, door de ontdekking der Asteroïden uitgelokt. 25 pp. 8° *Amsterdam*, 1856

— * Zweijæhrige Beobachtungen der meisten jetzt bekannten veränderlichen Sterne.

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44 ff. 4° M.D.LIIII. [*In fine*]: *Gedruckt zu Franckfurdt am Mayn / durch Hermann Gülfferichen / ...*

Woodcut on title and full-page printer's device at the end. *See* Libri 2435.

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— Trigonometriæ *Siue, De dimensione Triangulorum* Libri qvinqve, *Item* Problematvm variorū. *nempe* Geodæticorum, Altimetricorum, Geographicorum, Gnomonicorum, et Astronomicorum: Libri Decem. *Editio tertia, Cui recens accessit Problematum Architectonicorum liber unus.*
4 ff.+183 pp.+1 f.+270 pp. 4° *Francofurti, Typis Nicolai Hofmanni: Sumptibus Ionæ Rosæ. M.DCXII.*

Engraved title. Diagrams in text.

This is the complete work consisting of five books on trigonometry and eleven books on its applications, to which there is also a separate letterpress title, as follows.

— Problematvm variorvm: nempe Geodæticorum, Altimetricorum, Architectonicorum, Geographicorum, Gnomonicorum, & Astronomicorum. Libri vndecim, trigonometriæ svbjuncti, ad usum eius demonstrandum.
270 pp. 4° *Francofvrti, Apud Nicolaum Hoffmannum, sumptibus Ionæ Rosæ, Anno 1612.*

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This is merely a portion of the preceding work, complete in itself, and apparently issued separately.

Chasles 2234.

— *Thesavrvs Mathematicvs Sive* Canon Sinuum ad radium 1.00000.00000.00000. *et ad dena qvæqve scrvpvla secunda Quadrantis:* una cum sinibus primi et postremi gradus, ad evndem radivm, et ad singvla scrupula secunda Quadrantis: *adivnctis vbiqve differentiis primis et secundis; atque, vbi res tulit, etiam tertijs.* Iam olim qvidem incredibili labore & sumptu à Georgio Joachimo Rhetico supputatus: *at nvnc primvm in lvcem editvs, & cum viris doctis communicatus* a Bartholomæo Pitisco Grunbergensi Silesio. *Cvivs etiam accesservnt:* I. Principia Sinuum, ad radium, 1.00000.00000.00000.00000.00000. quàm accuratissimè supputata. II. Sinus decimorum, tricesimorum & quinquagesimorum quorumq; scrupulorum secundorum per prima & postrema 35. scrupula prima, ad radium. 1.00000.00000.00000. 00000.00.
4 ff.+271+61+10+15 pp. fol. *Francofurti Excudebat Nicolaus Hoffmannus, sumptibus Jonæ Rosæ Anno* CIↃ.IↃ.C.XIII.

The above is the general title in full, but there are also separate titles to the three last portions.

This volume belonged in succession to De Thou, Lalande, Delambre and Babbage. Thirty-one folios of MS., chiefly by Lalande and Delambre, are inserted.

Pitiscus, Bartholomæus — *continued.* Trigonometry: or, the Doctrine of Triangles... by Bartholomevv Pitiscvs ... Translated into English by *Ra: Handson.* Whereunto is added (for the Mariners use) certaine *Nauticall Questions*, together with the finding of the Variation of the Compasse. ...

4 ff.+208 pp. 4° *Printed by T. P. for G. Hurlock neare Magnus corner*, s.a.

[—] A Canon of Triangles: or, the Tables of Sines, Tangents, and Secants, *The* Radivs *assumed to be* 100000.

46 ff. 4° *London. Printed for Iohn Tap.* 1630

This is a serviceable 5-place table of natural sines, &c, but the columns are not named at the foot although the complimentary argument of degrees and minutes is given.

Bound at the end of the preceding work, to which it is a necessary supplement.

— *See* Rhæticus, G. J.

Pitschius, Georgius Caspar: De nihilo mathematico et formvlis affinibvs.

42 pp. 4° *VVittebergae*, 1727

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12 ff. 4° [*Francfurt an der Oder*] 1661

— Astronomica & Astrologica Observatio Cometæ Terribilis, ...

2 plates, 18 ff. 4° *Druckts Erasmus Rösner*, 1665

Placentzen, Vincentz von: Rechtliches Bedencken über die Cometen / ...

36 pp. 4° s.l., 1682

Plana, Giovanni Antonio Amedeo: * Mémoire sur divers problèmes de probabilité.

56 pp. 4° *Turin*, 1812

— * Mémoire sur le mouvement d'une ligne d'air et sur le mouvement des ondes dans le cas où les vîtesses des molécules ne sont pas supposées très-petites. 21 pp. 4° *Turin*, 1813

— * Mémoire Sur l'attraction des sphéroïdes elliptiques homogènes. 7 pp. 4° *Nismes*, 1813

— * Mémoire sur la Latitude et la Longitude de l'Observatoire de l'Académie de Turin.

55 pp. 4° *Turin*, 1814

— * Observations astronomiques faites à l'Observatoire de l'Académie Royale des Sciences.

54 pp. 4° *Turin*, 1817

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62 pp. 4° *Torino*, 1819

— * Notes sur la théorie des ondes donnée par M. Poisson ... 39 pp. 4° *Turin*, 1820

— Réflexions sur la théorie de l'équilibre et du mouvement des fluides, Qui recouvrent un sphéroide solide à-peu-près sphérique.

54 pp. 8° *Gênes*, 1821

— * Note sur l'intégrale de l'équation

$$(1) \ldots \frac{d^2y}{dx^2} + gx^m y = 0.$$

20 pp. 4° *Torino*, 1822

— * Mémoire sur l'intégration de l'équation linéaire

$$(1) \ldots \frac{d^n y}{dx^n} + A_{n-1}\frac{d^{n-1}y}{dx^{n-1}} + A_{n-2}\frac{d^{n-2}y}{dx^{n-2}} \ldots + A_1\frac{dy}{dx} + A_0 = X$$

dans le cas particulier où le polynome

$$Z = z^n + A_{n-1}z^{n-1} + A_{n-2}z^{n-2} \ldots + A_1 z + A_0$$

renferme un nombre quelconque de racines égales. 23 pp. 4° *Turin*, 1826

— * Note Sur un Mémoire de M. de Laplace, ayant pour Titre, *Sur les deux grandes inégalités de Jupiter et de Saturne* ... 12 pp. 4° *Torino*, 1826

— * Sur les formules relatives au mouvement de l'orbite du dernier Satellite de Saturne, obtenues par M. de Laplace, ... 4 pp. 4° *Torino*, 1827

— * Sur l'inégalité de Mercure à longue période.

2 pp. 4° *Torino*, 1827

— * Addition relative à la première partie de l'écrit intitulé NOTE SUR UN MÉMOIRE etc.

8 pp. 4° *Torino*, 1827

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43 pp. 4° *Turin*, 1828

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136 pp. 4° *Turin*, 1832

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— * Recherches analytiques sur les expressions du rapport de la circonférence au diamètre trouvées par Wallis et Brounker; et sur la théorie de l'intégrale Eulérienne $\int_0^1 x^{p-1}\,dx\,(1-x^n)^q$.
73 pp. 4° *Berlin*, 1837

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7 pp. 4° *Berlin*, 1837
Note on the preceding memoir.

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— Observatio solaris eclipsis habita Patavii V. nonas maias CIↃIↃCCXV. Accessere epistolæ duæ de quodam Phænomeno in eadem Eclipsi observato. 31 pp. 4° *Patavii* [1716]

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47 ff. 4° [*In fine*]: ... *Erhardus ratdolt Augustēsis impressit Venetijs* ... 1482 ...
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32 pp. 8° *Oxford*, 1834

— * Researches towards establishing a theory of the Dispersion of Light. [No. II., No. III.] 3 parts.
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— A general and elementary view of the Undulatory Theory as applied to the Dispersion of Light, ... 1 plate, vi.+lvi.+131 pp. 8° *London*, 1841
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— *Observations on certain cases of Elliptic Polarization of Light by Reflexion. 9 pp. 4° *London*, 1843

— *On a new Case of the Interference of Light. 14 pp. 4° *London*, 1848

— *On necessary and contingent Truth; considered in regard to some primary principles of mathematical, and mechanical science. 40 pp. 8° *Oxford*, 1849

— *Remarks on Lord Brougham's "Experiments and Observations on the properties of Light, &c." 8 pp. 8° *London*, 1852

— *On the Theory of M. Foucault's Gyroscope Experiments. 4 pp. 8° *London*, 1855

— *On the Demonstration of Fresnel's Formulas for Reflected and Refracted Light; and their applications. 3 parts. 20 pp., 8 pp., 5 pp. 8° *London*, 1856

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Power, Joseph: *An Enquiry into the ... Accident on the Brighton Railway (Oct. 2, 1841), in which is developed A Principle of Motion of the greatest importance in guarding against the Disasterous Effects of Collision ... 17 pp. 4° *Cambridge*, 1842

— *On the Truth of the Hydrodynamical Theorem, that if $udx + vdy + wdz$ be a Complete Differential with respect to x, y, z, at any one instant, it is always so. 10 pp. 4° *Cambridge*, 1842

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Prasse, Moritz von [Mauricius de]: De usu logarithmorum infinitinomii in theoria aequationum. 1 table, 46 pp.+1 f. 4° *Lipsiae*, 1796

— De ellipseos evolvta et aeqvidistantibvs earvmqve constrvctione. 1 plate, 14 pp. 4° *Lipsiae*, 1798

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[—] Additamenta ad theoriam seriervm arithmeticarvm ordinvm svperiorvm. 12 pp. 4° [*Lipsiæ*] 1803

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— De trinomialibvs factoribvs aeqvationvm. 18 pp. 4° [*Lipsiae*] 1811

[—] Demonstratio eliminationis Cramerianae. 15 pp. 4° *Leipzig*, 1811

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— Tables Logarithmiques pour les nombres, les sinus, et les tangentes, disposées dans un nouvel ordre par M. de Prasse, ... corrigées ... par M. Halma. 1 f.+80 pp. 16° *Paris*, 1814

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5 plates, xxvi.+616 pp. 8° *Cambridge*, 1836

Praun, Michael: Cometæ Malus Genius, sive Dissertatio Singularis, Quâ ... disquiritur: Annon Cometæ per malos genios regantur? ...
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Prechtl, Johann Joseph: Praktische Dioptrik als ... Anleitung zur Verfertigung achromatischer Fernröhre. ...
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Preece, G. E.: * Underground telegraphs.
33 pp. 8° [*London*] 1873

Prenant, Caresme: La Prognostication des prognostications composée par Caresme Prenant Docteur es deux Facultez de Bacchus et de Venus, ensemble la chanson des Biberons.
18 pp. 16° s.l., 1612
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Prenner, Sebastian: Das Grosz Planeten Buch / sampt der Geomanci / Physiognomi vnd Chiromancj. ... 8+ccx. ff. 8° *Straszburg*, 1628
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Prestel, Michael August Friedrich: Das astronomische Diagramm, ...
2 plates, 16 in. × 24 in., xxi. + 404 pp. 8° *Braunschweig*, 1859.

Prestet, J.: Table de Logarithmes.
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Preuss, Ernst Wilhelm: Astronomische Beobachtungen auf des Herrn Capitain Otto v. Kotzebue zweiten Reise um die Welt... Herausgegeben von W. Struve. 46 pp. 4° *Dorpat*, 1830

Prevost, Alexandre Pierre: Essai sur la théorie de la vision binoculaire.
3 plates, 50 pp. 4° *Genève*, 1843

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17 pp. 4° *Genève*, 1826

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1 plate, 21 pp. 4° *London*, 1798

— Deux traités de physique mécanique publiés Par Pierre Prevost comme simple éditeur du premier [de George Louis Le Sage] et comme auteur du second.
1 plate, xliij.+352 pp. 8° *Genève, Paris*, 1818

— * De quelques phénomènes dépendans de la radiation du calorique. 39 pp. 4° *Genève*, 1823

— Esquisse d'un cours d'optique élémentaire, ...
1 plate, ii.+38 pp. 8° *Genève*, 1824

— Mémoire sur la constitution mécanique des fluides élastiques. 50 pp. 4° *Genève*, 1828

— * Discussion de quelques expériences relatives à l'influence de la densité sur la chaleur spécifique des gaz: et quelques rapprochemens relatifs au refroidissement d'un corps dans un gaz. [Suite...]
28+8 pp. 4° *Genève*, 1828, '30

— Exposition élémentaire des principes qui servent de base à la théorie de la Chaleur Rayonnante, faisant suite à l'ouvrage intitulé *Du Calorique Rayonnant.* 1 plate, 149 pp. 8° *Genève*, 1832

— * De quelques apparences visuelles sans objet extérieur. [Appendice.]
1 plate, 23 pp. 4° *Genève*, 1832

— * Mémoire sur une apparence douteuse de mirage.
1 plate, 18 pp. 4° *Genève*, 1834

— Discours sur la vie et les travaux de feu Pierre Prevost par A. Cherbuliez.
64 pp. 8° *Genève*, 1839

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Price, Richard: Observations on Reversionary Payments; on Schemes for providing Annuities for Widows, and for Persons in Old Age; ... And a General Introduction. By William Morgan. Fifth edition. Vol II.
492 pp.+12 ff. 8° *London*, 1792
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Prierio, Sylvestro de: ¶ Clarissimi Sacre Theologie omniumq; bonarum artium professoris ... Siluestri De Prierio ... in spherā ac Theoricas preclarissima Commentaria.

lvi.+lv.+1 ff. [*In fine*]: ¶ ... *Impressa Mediolani. per Gotardū de Ponte. Anno ... M.D.xiiij. ...*

Diagrams in text.

Two treatises,—on the Sphere of Sacrobusco and on the Theory of the Planets.

Chasles 3055.

Priestley, Joseph: The History and present state of Electricity, with Original Experiments.

7 plates, xxxi.+736 pp.+4 ff. 4° *London*, 1767

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— A short Account of a Chart of Biography. The Second Edition. 1 plate, 1 p. 4° [*London*, 1767]

On the plan of representing the duration of a life by the length of a black line, afterwards used by Poggendorff in his *Lebenslinien*.

— The History and present state Of Discoveries relating to Vision, Light, and Colours.

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At the end is a catalogue of books belonging to Priestley or used by him.

— The History and present state of Electricity, with original experiments, ... The third edition ... Vol. I. [II.] 2 vols. 8° *London*, 1775

— * Experiments on the Production of Air by the Freezing of Water. 4 pp. 4° *London*, 1800

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Prince, Charles Leeson: Observations upon the Climate of Uckfield constituting a meteorological record for the district from 1843 to 1870. ...

4 plates, 239 pp.+1 f. 8° *London*, 1871

— Observations upon the late Great Comet and Transit of Venus, made at Crowborough, Sussex, in ... 1882. 8 plates, 42 pp. 8° *Lewes*, 1883

— Observations upon the Heat and Drought of the past Summer. 1 f. fol. *Crowborough*, 1884

— Observations upon the Topography & Climate of Crowborough Hill, Sussex, together with other subjects of collateral interest.

2 plates, 2 ff.+104 pp. 8° *Lewes*, 1885

— Some remarks upon the temperature of the winter of 1885-86. 2 ff. fol. *Crowborough*, 1886

Prince, Charles Leeson—*cont.* Observations upon the Climate of Uckfield, ... from 1843 to 1870. Second edition. With some additional observations and statistics of rainfall to the end of the year 1885.

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— * An Analysis of Forty Years' consecutive Observations of Storms in the County of Sussex.

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Prindl, Johann Conrad: Fructifera septiramis laurus, Das ist: Fruchtbarer siebenästiger Lorbeer-Baum / Oder: Wohlgegründetes Rechen-Büchlein / ... [Neues Wein-Büchlein / ...].

12 ff.+192+120 pp. 12° *Mäyntz* [1679]

Pringle, A. D.: Hints for the Contraction of English Handwriting ...

3 ff.+76 pp. 8° *London*, 1874

The body of the work is lithographed.

Pringle, John: * A Discourse on the Attraction of Mountains. 33 pp. 4° *London*, 1775

— * A Discourse on the Torpedo.

32 pp. 4° *London*, 1775

— * A Discourse on the Invention and Improvements of the Reflecting Telescope.

24 pp. 4° *London*, 1778

— * A Discourse on the Theory of Gunnery.

33 pp. 4° *London*, 1778

Printers' Marks: 2 vols. fol.

A collection of Printers' Marks, Specimens of Type, &c.

Printing: The Origin of Printing; in two essays: I. The substance of Dr. Middleton's Dissertation on the Origin of Printing in England. II. Mr. Meerman's Account of the First Invention of the Art ... Appendix ...

16+144 pp. 8° *London*, 1774

— * Observations on the Art of Printing Books and Piece Goods by the Action of Cylinders.

6 pp. 4° *London*, 1797

— The Autotype Process being a practical manual of instruction in the art of Printing in Carbon, or other permanent pigment.

63+16 pp. square 8° *London*, 1871

Pritchard, Charles: * On the conjunctions of the planets Jupiter and Saturn, in the years B.C. 7, B.C. 66, and A.D. 54. 8 pp. 4° *London*, 1857

Pritchard, Charles—*cont.* *On the Moon's Photographic Diameter and on the applicability of Celestial Photography to accurate Measurement. 30 pp. 4° *London*, 1882

— * Photometric Determination of the relative Brightness of the Brighter Stars North of the Equator. 104 pp. 4° *London*, 1883

— * On the relative proper motions of 40 stars in the Pleiades determined from micrometric and meridional observations. 50 pp. 4° *London*, 1885

— * Researches in Stellar Photography. 1. In its relation to the Photometry of the Stars; 2. Its applicability to Astronomical Measurements of great Precision. 18 pp. 8° *London*, 1886

— * Supplementary Measures of the Magnitudes of a Zone of Stars near the Equator for reference as Standards of Magnitude in lieu of Polaris. 4 pp. 8° *London*, 1886

— * On a Remarkable Instance of the Detection of Distortion in a Photographic Film, measured for the purpose of Stellar Parallax. 3 pp. 8° *London*, 1886

— * Report on the Capacities, in respect of Light and Photographic Action, of two Silver on Glass Mirrors of different Focal Lengths. 15 pp. 8° *London*, 1888

— *See* Observatories. Oxford—University Observatory.

Pritchett, Robert Taylor: Scloppetarian Memoranda. 3 vols. fol. [*London*, 1853-60]

MS. notes on fire-arms with illustrative drawings and printed papers on the subject.

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See Observatories. Glasgow, Mo.

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4 ff., last blank, 82 pp.+1 f. 4° *Apud Ioannem Vualder Basileæ, An.* 1540.

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— *See* Boncompagni, B., 1874.

Procopius, Johann: Κομητοδικαιολοπροσιασία Oder Cometenbutzer / ...
8 ff. 4° *Gedruckt in Parnassischer Buchdruckerey*, [*Prag*] 1619.

— Κομητοπροστασιεκδικητὴς Oder Cometenbutzers Schützer / ...
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For fuller titles, *see* p. 119.

Proctor, Richard Anthony: Saturn and its System:—
14 plates, xvi.+252 pp. 8° *London*, 1865

— * The approaching total Solar Eclipse. 1 plate, 8 pp. 8° *London*, 1870

— Half-hours with the Stars: a plain and easy guide to the knowledge of the constellations, ... Second edition. 12 maps, 22 pp. 4° *London*, 1870

— A chart of the Northern Hemisphere,...Showing all the Stars in Argelander's...Charts,—324,198 in all. 1 photo., 1 map, 1 f. fol. *Manchester*, 1871

— The Sun: Ruler, Fire, Light, and Life of the Planetary System. 10 plates, xxiv.+480 pp. 8° *London*, 1871

— Essays on Astronomy: ... 10 plates, xiv.+401 pp. 8° *London*, 1872

— The orbs around us: a series of familiar essays on the Moon and Planets, Meteors and Comets, the Sun and Coloured pairs of Suns. 1 plate, vii.+340 pp. 8° *London*, 1872

— The Borderland of Science: a Series of familiar Dissertations on Stars, Planets, and Meteors; Sun and Moon; Earthquakes; Flying Machines; Coal; Gambling; Coincidences; Ghosts; &c. 1 portrait, vii.+438 pp. 8° *London*, 1873

— The Expanse of Heaven. A series of essays on the Wonders of the Firmament. iv.+305 pp. 8° *London*, 1873

Proctor, Richard Anthony—*cont.* The Moon: her motions, aspect, scenery, and physical condition.
3 photographs, 22 plates, xv. + 394 pp. 8° *London*, 1873.

[—] The same.
3 photographs, 22 plates, xv. + 394 pp. 8° *Manchester*, 1873.
The same impression as the preceding but with another title-page.

— Light Science for Leisure Hours. A series of familiar essays on scientific subjects, natural phenomena, &c., &c. Second edition.
viii.+323 pp. 8° *London*, 1873

— * Comets and Meteors. 21 pp. 8° *London*, 1873

— The Universe and the coming Transits ... of Venus. 22 plates, xiv.+303 pp. 8° *London*, 1874

— Transits of Venus. A popular account of past and coming transits from the first observed by Horrocks A.D. 1639 to the transit of A.D. 2012.
20 plates, xiv.+236 pp. 8° *London*, 1874

— * Classification of Comets.
12 pp. 8° *London*, 1874

— A Star Atlas for students and observers showing 6000 Stars and 1500 Double Stars, Nebulæ, &c. ... Fourth edition.
14 maps, 4 pp. fol. *London*, 1877

— * A new crater in the Moon.
16 pp. 8° *London*, 1878

— * Comets. [Part II.]
5 figs., 6 pp. 4° *London*, 1881

— Chart of Mars from 27 drawings by Mr. Dawes.
Sheet, 13 in. × 10 in., s.l., s.a.

— Chart of the Zodiac [on the Stereographic Projection.] Sheet, 10 in. × 13 in., s.l., s.a.

Profe, Gottfried: Historischmathematische Nachricht von der Osterzeit.
4 ff.+56 pp. 4° *Altona und Flensburg*, 1744
Appended is the text of Pope Gregory's bull of the year 1582.

Prognostication: pronosticatio zu theutsch. Eyn schöne seltzen vnd vor nyt mer gehorte Pronosticatio die vszdruckt was glücks vnd vngelucks die grösze Coniunction vnd die Eclipsis gewest synt In dyeszen gegẽwirdigẽ vnd zukünfftigen Jaren beduten vnd antzeygen vnd wirt weren etwan vyl iare. 45 ff. fol. s.l. [1488]
45 large and curious wood-cuts in the text. Without any marks except signatures which are irregular. On the *recto* of folio 41 is a "prediction" respecting the beginning of A.D. 1481.

Prognostication—*continued.* Pronosticatio Latina Anno. lxxxviij. ad magnã cõiunctionẽ Saturni ♄ Jouis q̃ fuit ãno. lxxxiiij. ac eclipsim solis ãni sequentis. scz. lxxxv. cõfecta ac nũc de nouo emẽdata Durabit plurib9 annis ...
36 ff. fol. [*In fine*]: ¶ *Emendatum denuo presagium hoccine impressioni quoque itẽ4 deditũ Anno dñi M.cccc.xcij. octaua die mensis Junij in inclita vrbe Maguntina* ...
Folios cii. and cvi. have been supplied in MS.
43 woodcuts from blocks used for the German edition.

— [Prognosticon in annum M.ccccc.xvij.] [*Incipit*]: ¶ Rogo atqꝫ obsecro vos scientia4 amatores. ...
7 ff. 4° s.l. [1516]
Title wanting. Three woodcuts at the end.

— Α''ΓΝΩΣΤΟΝ Sobriè-Astrologicum, ... dem Prognostico Ebriè-Astrologico, Welches Ein Scarteken-Schmierer Auff das 1654. Jahr ... gestellet / ... Entgegen gesetzet ...
22 ff. 4° *Leipzig*, 1652
Preface of three pages in elaborate Gothic type.

Projectiles: De motu corporum projectorum in spatio non resistente dissertatio habita in Seminario Romano Soc. Jesu a marchione Jacobo Zambeccari. 1 plate, xxiv. pp. 4° *Romæ*, 1740
See Dissertations.
Chasles 1696.

Prony, Gaspard Clair François Marie Riche de: Exposition d'une méthode pour construire les équations indéterminées qui se rapportent aux sections coniques.
2 plates, viii.+26 pp. 4° *Paris*, 1791

— Mécanique philosophique, ou analyse raisonnée des diverses parties de la science de l'équilibre et du mouvement.
vij.+477 pp. 4° *Paris*, An VIII.

— Leçons de mécanique analytique, ... Première [Seconde] partie. 2 vols. 4° *Paris*, 1810, '15

— Notice sur les grandes Tables Logarithmiques et Trigonométriques, adaptées au nouveau système métrique décimal.
12 pp. 4° *Paris*, 1824

— Réclamation...contre une interprétation erronée donnée à un passage de son *Traité de mécanique analitique* ... par M. Kater, dans ... *An account of experiments for determining the length of the pendulum, etc.* ... 4 pp. 4° [*Paris*] s.a.

Provis, John: Tables of the most useful kind, to facilitate business in the several branches of the Copper Trade, ... 263 pp. 4° *Truro*, 1801

Pruckner, Nicolaus: *See* Firmicus Maternus, J.

Prus, C.: Tables relatives au tracé des courbes de raccordement.

1 plate, xxiii.+477 pp.+1 f. 8° *Angers*, 1846

Ptolemy, Claudius [Ptolemæus, Ptolomæus, Ptholomeus]: ¶ Liber Quadripartiti Ptolomęi id ē quattuor tractatuū: in radicanti discretione ꝑ stellas d'futuris ✠ ī hoc mundo cōstructiōis ✠ destructiōis cōtingētibꝰ ...

68 ff. 4° [*In fine*]: ¶ *Impressum in Venetijs per Erhardum ratdolt* ... 1484.

Scheme on *verso* of the first folio.

— ¶ Liber quadripartiti Ptholemei. ... ¶ Messahallach de receptionibus planetaruꝫ. ¶ Eiusdem de interrogationibus. ¶ Epistola eiusdē cū duodecim capitulis. ¶ Eiusdem de reuolutionibus annoꝝ mundi.

2+152 ff. fol. [*In fine*]: *Venetijs per Bonetum locatellum: ... M.CCCC.LXXXXIII. ...*

— Sacratissime Astronomie Ptholemei Liber diuersarū rerum: Quem scrisit [*sic*] ad Heristhonem filium suū: ...

14 ff. 4° *M.D.VIIII. ... Prodeat in Lucem Ductu Petri Liechtenstein.* [*In fine*]: ... *Venetijs* ...

— Almagestū Cl. Ptolemei Pheludiensis Alexandrini Astronomoꝝ principis: Opus ingens ac nobile omnes Celorū motus continens. ...

2 + 152 ff. fol. *Ductu Petri Liechtenstein Coloniēsis Germani. Anno* ... 1515. ... *Venetijs* ...

— Clavdii Ptolemei inerrantivm stellarvm sig*nificationes, per Nicolaum Leonicenum e Græco translatæ.*

16 ff. 8° *Vitebergae* [*per Nicolavm Schirlentz*] 1534.

— Κλ. Πτολεμαίου Μεγάλης Συντάξεως Βιβλ. ιγ' Θέωνος Ἀλεξανδρέως εἰς τὰ αὐτὰ Ὑπομνημάτον Βιβλ. ιά. 2 parts in 1 vol.

8 + 327 + 4 + 8 ff. + 327 pp., 4 ff. + 425 pp. fol. *Basileae apvd Ioannem Vvaldervm. An. M.D.XXXVIII.*

— Claudii Ptolemæi Pelusiensis Alexandrini omnia quæ extant opera, præter Geographiam,... castigata ab Erasmo Osualdo Schreckenfuchsio, ...

44 ff.+447 pp. fol. [*In fine*]: *Basileae in officina Henrichi Petri ... anno M.D.LI.*

Ptolemy, Claudius [Ptolemæus, Ptolomæus, Ptholomeus]—*cont.* Claudius Ptolemäus ... Beobachtung und Beschreibung der Gestirne und Bewegung der himmlischen Sphäre. Mit ... Vergleichungen ... der neueren Beobachtungen ... von J. E. Bode.

1 chart, viii. + 260 pp. 8° *Berlin und Stettin*, 1795.

— Κλαυδιου Πτολεμαιου Μαθηματικη συνταξις. Composition mathématique de Claude Ptolémée, [ou astronomie ancienne,] traduite ... du grec en français, ... Par M. Halma; et suivie de notes de M. Delambre. Tome premier [second]. 2 vols. 4° *Paris*, 1813, '16

— Κλαυδιου Πτολεμαιου Θεωνος Κ. Τ. Λ. Κανων βασιλειων, και φασεις απλανων, ... Table chronologique des règnes, ... apparitions des fixes ... traduites ... du grec ... Suivies des recherches ... sur les observations astronomiques des anciens, ... de M. Ideler, ... et précédées ... de deux dissertations sur la réduction des années et des mois des anciens, à la forme actuelle des nôtres, Par M. l'abbé Halma, ... 4° *Paris*, 1819

— Κλαυδιου Πτολεμαιου υποθεσεις και πλανωμενων αρχαι, και Προκλου Διαδοχου ὑποτυπωσεις. Hypothèses et époques des planètes, de C. Ptolémée, et hypotyposes de Proclus Diadochus, traduites ... du grec ... suivies des trois mémoires ... de M. Ideler, sur les connoissances astronomiques des Chaldéens, sur le cycle de Méton et sur l'ère Persique; ... et précédées ... de deux dissertations sur les mois Macédoniens, et sur le Calendrier Judaïque, Par M. l'Abbé Halma.

4° *Paris*, 1820

— Θεωνος Αλεξανδρεως υπομνημα εις το προτον της Πτολεμαιου...συνταξεως. Commentaire de Théon d'Alexandrie, sur le premier [second] livre de la Composition Mathématique de Ptolemée, ... traduit ... Par M. l'Abbé Halma. Tome I. [II.] 2 vols. 4° *Paris*, 1821

— Θεωνος Αλεξανδρεως υπομνημα. Commentaire de Théon d'Alexandrie, sur le livre III. de l'Almageste ...; Tables manuelles des mouvemens des astres, ... [seconde ... troisième partie] traduites Par M. l'Abbé Halma. 1 vol. 4° *Paris*, 1822, '23, '25

In the second part is the *Éloge de M. Delambre, Prononcé ... par ... Fourier.*

Ptolemy, Claudius [Ptolemæus, Ptolomæus, Ptholomeus]—*continued.*

See Meseallach.
Montignot, H.
Pontanus, J. J.
Regiomontanus, J.
Theon the Younger.
Valla, G.

Puiseux, V.: * Note sur le mouvement d'une chaine pesante infiniment mince sur la cycloïde.
2 pp. 4° *Paris*, 1843

— *See* Observatories. Paris.

Puissant, Louis: Recueil de diverses propositions de Géométrie, résolues ou démontrées par l'analyse algébrique, suivant les principes de Monge et de Lacroix: ...
2 plates, 121 pp. 8° *Paris*, An IX—1801

— Traité de Géodésie, ...
10 plates, xxiv. + 318 pp. + 26 ff. 4° *Paris*, An XIV = 1805.

— Traité de topographie, d'arpentage et de nivellement.
6 plates, xx. + 331 pp. + 9 ff., tables, 4° *Paris*, 1807.

— Supplément au second livre du traité de topographie, contenant la théorie des projections des cartes.
1 plate, 1 table, 112 pp. 4° *Paris*, 1810

— * Tables pour abréger les calculs des latitudes et azimuts terrestres, observés au moyen de la Polaire. 10 pp. 8° *Paris*, 1826

Purbach, Georg von [Peurbach]: Theoricae novae planetarvm Georgii Pvrbachii astronomi celebratissimi.
20 ff. fol. s.l., s.a. [*sed Nuremberg, circa* 1471]
First edition. Many diagrams in text.

— ¶ Theoricae nouæ planetarū Georgii Purbachii astronomi celebratissimi. Ac ī eas ... Frācisci Capuani de Manfredonia ... sublimis expositio & luculentissimum scriptum.
60 ff. fol. [*Venetiis*, 1499]
Printed in continuation of Sacrobosco's *Sphera Mundi*, from which the place and date are taken.

Purbach, Georg von [Peurbach] — *continued.*

Opus Algorithmi incundissimū Magistri Georgij Peurbachij wiennensis (preceptoris singularis Magistri Joannis de Monteregio) sacreq; Mathematice inquisitoris subtilissimi summa cū vtilitate exemplis ac cubice radicis extractione alleuiatoq; ꝑcedendi modo nuper digestum.
8 ff. 4° [*In fine*]: ¶ *Et tantum de hoc opere Algoristico Anno Christi Hiesu Millesimoquingentesimotertio p Baccalariū Martinū Herbipoleñ impresso.*
A most interesting book; 12 years earlier than anything of Peurbach's noticed by De Morgan. The chief features are:—Arabic numerals; multiplication table to 9 times 9; proving by casting out the nines; long multiplication exactly as it is done at present, the tens being added mentally. Long division on old system with mental subtraction, but working upwards; square-root the same, with formation of 2*a* for new divisor; cube-root with 3*a*. Lastly *Regula aurea siue detre*, and *Regula Societatis.*
Blank spaces for initial capitals.

— Georgij Peurbachij. Mathematici omnui acutissimi / institutiões in Arihtmeticam [*sic*]: cum alijs tum in primis adulescentibus necessarie.
8 ff., last blank, 4° [*In fine*]: *Nurnberge impressit Joannes Weyssenburger Sacerdos. Anno.* 15.13. ...
Rubricated by hand.

— Tabulae Eclypsiū Magistri Georgij Peurbachij. Tabula Primi mobilis Joannis de Monteregio.
134 ff. + 2 ff. Tabula Manualis. [*In fine*]: *Absolutum est hoc ... opus Arte ... Ioannis Winterburger. Impēsis vero Leonardi & Lucæ alantse fratrū Ciuium Viennensium Anno ... 1514. ... Elimatum denuo & recognitum Sūma cum diligentia a Georgio Tannstetter ...*
Two small diagrams on title, at the top of which is written *Aegidius a Glarona dictus Tschudi me posidet.*

— Theoricarum nouarum Textus Georgij Purbachij cū ... expositione ... Francisci Capuani ... Itē in easdē ... Syluestri de Prierio perfamiliaris commentatio. Insuper Jacobi Fabri Stapuleñ. astronomicon. ... Omnia nuper ... emendata ...
2 ff., diagrams, + xci. + 1 ff. fol. *Iehan Petit ... Parrhisiis ...* [*In fine*]: ¶ *Absolutū est ... solertia: ⁊ caracteribus Michaelis Lesclēcher | ... Sūptibus vero ... Johānis Parui ⁊ Reginaldi Chauderon ... Anno ... 1515. ...*
Printer's device on title. Diagrams in text.
Full-page figure of the sphere on *verso* of title.

Purbach, Georg von [Peurbach] — *continued.*

Algorithmus georgii Peurbachii Mathematici omniū acutissimi nō tā utilis q̄ necessarius. ...

8 ff. 4° [*In fine*]: *Per Hieronymū Vietorē Viennæ Austriæ ... Anno* 1515.

— THEORIcę nouæ Planetarum, id est, septem errantium, syderum, necnon Octaui orbis, seu firmamenti ... nuper summa diligentia Orontij Finei Delphinatis emēdatę, ...

xliiij. ff. 4° ¶ *Vęnundantur parisijs, ... apud Reginaldum Caldarium, ... M D XXXIIII.*

Diagram on title and many in text.

— Elementa Arithmetices. Algorismvs de nv*meris integris, fractis, Regulis communibus, & de Proporcionibus. ... Cum præfacione Philip. Melanth.*

56 ff., last blank, 8° [*In fine*]: *Impressum Vitebergæ per Iosephum Klug. An. MD.XXXVI.*

Title in woodcut border.

— Theoricae novae planetarvm Georgii Pvrbacchii Germani ab Erasmo Reinholdo Salueldensi pluribus figuris auctæ, & illustratæ scholijs, ... Inserta item methodica tractatio de illuminatione Lunæ. ...

240 ff. 8° [*In fine*]: ... *Vitembergæ per Ioannem Lufft.* ... 1542.

Diagram of solar eclipse of 1544 on the title-page.

— Theoricae novæ planetarvm ... Quibus accesserunt Ioannis de Monteregio Disputationes, super deliramenta Theoricarum Gerardi Cremonensis. Item, Ioannis Essler ... Specvlvm Astrologorvm ... Quæstiones verò in Theoricas Planetarum Purbachij, Authore Christiano Vrstisio. 2 parts in 1 vol.

8 ff. + 230 pp., 24 ff. + 423 pp. 8° *Basileæ* [1596]

In addition to many woodcuts in the text and one on the title are ten folding cuts in the *Quæstiones* on one of which stands: *Buchbinder zerschneid diese Figuren | vnd gib einer jeden ihr orth.*

— *See* Bose, G. M.
Brahe, Tycho, 1654.
Nuñez, P.

Puteanus, Erycus [Van der Putten]: De Cometa Anni ∞ IↃC.XVIII. ... Libri dvo. ...

166 pp. 12° *Coloniæ*, 1619

— De stipendio militari apvd Romanos syntagma: ...

96 pp. + 5 ff. 12° *Coloniæ*, 1620

Puteanus, Erycus [Van der Putten]—*continued.*

Pecvniæ Romanæ ratio, Facillimo ad nostram calculo reuocata, ...

56 pp. + 2 ff. 12° *Coloniæ*, 1620

Three works in one small volume.
See Comets.

Pyramid: Recent works on the Great Pyramid.

8 pp. 8° s.l., s.a.

Pythagoras: Ludus Pitagore.

10 ff. 4° [*In fine*]: *Finis operis. 1482. Die. 21 Augusti. Laus deo.*

Chasles 2647 *bis.*

Quarterly Journal of Pure and Applied Mathematics, The:

See Cambridge Mathematical Journal.

Quarterly Journal of Science, The: Edited by James Samuelson and William Crookes. Vol. I. [-V.] 5 vols. 8° *London*, 1864-68

— Conducted by William Fairbairn; William Crookes; Robert Hunt; H. Woodward and James Samuelson, Editor. Vol. VI. [-VII.] 2 vols. 8° *London*, 1869, '70

— The Quarterly Journal of Science, and Annals of Mining, Metallurgy Engineering, Industrial Arts, Manufactures, and Technology. Edited by William Crookes. Vol. I. [-VIII.] (New Series.) Vol. VIII. [-XV.] O.S. ... 8 vols. 8° *London*, 1871-78

— The Journal of Science, and Annals of Biology, Astronomy, Geology, Industrial Arts, Manufactures, and Technology. (Monthly, formerly "The Quarterly Journal of Science.") Edited by William Crookes. Vol. I. [-III.] (Third Series.) Vol. XVI. [-XVIII.] (O.S.) 3 vols. 8° *London*, 1879-81

Quetelet, Ernest: * Recherches sur les Médianes. 32 pp. 4° *Bruxelles*, 1852

— * Mémoire sur les foyers.

1 plate, 44 pp. 4° *Bruxelles*, 1854

— * Sur le mouvement propre de quelques étoiles. 47 pp. 4° *Bruxelles*, 1864

— Mémoire sur la température de l'air à Bruxelles. [Tableaux généraux de la température de l'air. 1833-1862.] 64 + 103 pp. 4° *Bruxelles*, 1867

— * La comète de Coggia, observée à Bruxelles. 10 pp. 8° *Bruxelles*, 1874

Quetelet, Lambert Adolphe Jacques: *Mémoire sur différens sujets de géométrie à trois dimensions, ... 2 plates, 30 pp. 4° *Bruxelles*, 1826

— Positions de physique, ou résumé d'un cours de physique générale. Tome premier [second]. 2 vols. in 1.
iii. ff. + 204 + 221 pp. 16° *Bruxelles*, 1827

— *Résumé d'une nouvelle théorie des caustiques, suivi de différentes applications à la théorie des projections stéréographiques, ...
1 plate, 35 pp. 4° *Bruxelles*, 1827

— Astronomie populaire.
4 plates, xiv. + 148 pp. 12° *Bruxelles*, 1827

— *Recherches sur l'intensité magnétique de différentes lieux de l'Allemagne et des Pays-Bas.
18 pp. 4° *Bruxelles*, 1830

— Sur la latitude de l'Observatoire de Bruxelles...
20 pp. 4° *Bruxelles*, 1836

— *Mémoire sur les variations diurne et annuelle ... de la Température terrestre ...
3 plates, 80 pp. 4° *Bruxelles*, 1837

— Catalogue des principales apparitions d'étoiles filantes. 63 pp. 4° *Bruxelles*, 1839

— *Sur l'état du Magnétisme terrestre à Bruxelles ... [1827-39]. 40 pp. 4° *Bruxelles*, 1839

— *Sur la longitude de l'Observatoire royal de Bruxelles ... 16 pp. 4° *Bruxelles*, 1840

— Deuxième mémoire sur les variations annuelles de la température de la Terre ...
3 plates, 52 pp. 4° *Bruxelles*, 1840

— *Second mémoire sur le Magnétisme terrestre en Italie. 1 plate, 27 pp. 4° *Bruxelles*, 1840

— *Nouveau catalogue des principales apparitions d'étoiles filantes.
1 plate, 60 pp. 4° *Bruxelles*, 1842

— *Instructions pour l'observation des phénomènes périodiques. 16 pp. 4° [*Bruxelles*, 1842]

— The same. 16 pp. 4° [*Bruxelles*, 1843]

— Rapport ... Par M. le directeur de l'Observatoire sur l'état et les travaux de cet établissement pendant l'année 1841. 7 pp. 8° *Bruxelles*, 1842

— Observations des Phénomènes périodiques. [1841-69]. 29 years. 4° *Bruxelles*, 1842-70

Quetelet, Lambert Adolphe Jacques—*continued.*

*Lettres ... sur la théorie des Probabilités, appliquée aux sciences morales et politiques.
iv. + 450 pp. 8° *Bruxelles*, 1846

— *Rapport ... sur l'état et les travaux de l'Observatoire Royal, pendant l'année 1848. [1852.] 2 years. 8° *Bruxelles*, 1848, '53

— Théorie des probabilités.
1 plate, 104 pp. 8° *Bruxelles* [1853]
Forms the 18th volume of the 5th series of *Encyclopédie populaire.*

— *Mémoire sur les variations périodiques et non périodiques de la Température ...
2 plates, 45 + 58 pp. 4° *Bruxelles*, 1854

— Sur le climat de la Belgique ... Tableaux généraux. 55 + 118 pp. 4° *Bruxelles*, 1857

— *Observations des passages de la lune et des étoiles de même culmination.
29 pp. 8° *Bruxelles*, 1857

— *Table de Mortalité d'après le recensement de 1856. 1 plate, 9 pp. 4° *Bruxelles*, 1859

— Rapport sur deux mémoires envoyés au concours de 1860, en réponse à la question suivante: "*On demande d'exposer la théorie probable des étoiles filantes, ...*" 6 pp. 8° *Bruxelles*, 1860

— *De la statistique considérée sous le rapport ... de l'intelligence de l'homme. Ier mémoire.
35 pp. 4° *Bruxelles*, 1860

— *Phénomènes périodiques, magnétisme, astronomie. 23 pp. 8° *Bruxelles*, 1860

— *Sur la différence de longitude des Observatoires de Bruxelles et de Berlin ...
55 pp. 4° *Bruxelles*, 1861

— Sur la physique du globe.
3 plates, ii. + 436 pp. 4° *Bruxelles*, 1861

— *Sur le congrès international de statistique, tenu à Londres ... 1860 ...
31 pp. 4° [*Bruxelles*, 1861 ?]

— Histoire des Sciences mathématiques et physiques chez les Belges ...
479 pp. 8° *Bruxelles*, 1864

— Sciences mathématiques et physiques chez les Belges, au commencement du XIXe siècle.
iii. + 754 pp. 8° *Bruxelles*, 1866

Quetelet, Lambert Adolphe Jacques—*continued.*
Météorologie de la Belgique comparée à celle du globe.
Frontispiece, xiv.+505 pp. 8° *Bruxelles, Paris,* 1867.

— * Essai sur la vie et les ouvrages de L.-A.-J. Quetelet, par Éd. Mailly.
Portrait, 191 pp. 12° *Bruxelles,* 1875

— * Sur les anciens recensements de la population belge. 38 pp. 4° *Bruxelles,* s.a.

— * De l'influence du libre arbitre de l'homme sur les faits sociaux, ... 21 pp. 4° *Bruxelles,* s.a.

— * Notice sur le congrès statistique de Florence en 1867. 41 pp. 4° [*Bruxelles*] s.a.

— *See* Correspondance Mathématique et Physique. Observatories. Brussels. Sheepshanks, R.

R., J. A.: Comets' Tails No Longer a Mystery! and a few questions by J. A. R.
5 plates, 30 pp. 16° *London,* 1873

R., P. Q.: * Propositions in the Theory of Attractions. Part I. [II.]
7 + 6 pp. 8° *Cambridge,* 1843

R. de C., Le Comte: *See* Radicati di Cocconato, I.

Racine, Amédée: Tables pour calculer la latitude d'un lieu par des observations de la polaire ...
12 pp. 4° *La Chapelle du Bourgay,* 1824

Radau, R.: Les Observatoires de Montagne. Les nouveaux observatoires météorologiques du Puy-de-Dome et du Pic-du-Midi de Bigorre.
71 pp. 8° *Paris,* 1876

— * Remarques concernant le problème de Kepler.
2 pp. 4° *Dublin,* 1883

Rademan, Augustin: Gründliche vnd warhafftige Beschreibung des grossen vnd erschrecklichen Cometen, ... 16 ff., last blank, 4° *Erffurt,* 1619
Woodcut on title.

R[adicati] di C[occonato, Ignazio]: Mémoires analytiques par le Comte R. de C. ...
xlvi. pp. 4° *Milan,* 1776

Radike, Gustav: * Einige Bemerkungen über die Principien der Cauchyschen Residuenrechnung.
24 pp. 4° *Berlin,* 1843

Radinus, Thomas: Sideralis Abyssus ...
1 woodcut, 4+lxxix. ff. 4° [*In fine*]: *Adulescentis artiū disciplinarūque oīm amatoris necnon Hierosophiæ p̄cultoris fratris Tho. Radini Todischi Placentiuæ canonicę p̄dicatorij ordinis vitæ sideralis abissus faustū explicit* ◧ *Luteciæ impressum opa Thomę Kees: ... Anno ... Millesimo supra quingentesimum decimūquartum: ...*
Printer's device on title. Woodcuts in text.
Chasles 3056.

Radlof, J. G.: Zertrümmerung der groszen Planeten Hesperus und Phaëthon, ... nebst neuen Aufschlüssen über die Mythensprache der alten Völker. x.+120 pp. 8° *Berlin,* 1823

Radowitz, J. von: Handbuch für die Anwendung der reinen Mathematik. Eine systematische Sammlung der Formeln ... Erster Band. Die Formeln der Geometrie und Trigonometrie.
1 table, xx.+369 pp. 4° *Berlin,* 1827

Rahts, Johannes: * Berechnung der Elemente des Tuttle'schen Cometen für seine Erscheinung im Jahre 1885. Inaugural Dissertation ...
19 pp.+"vita" 4° *Kiel,* 1886

Railway Company, West Flanders: Report of the Directors ... 1846 ...
3 pp. fol. *London,* 1846

Railways: D'un nouveau système dans la construction des chemins de fer.
16 pp. 8° [*Paris,* 1846]

Rajna, Michele: * Determinazione della latitudine dell'Osservatorio di Brera in Milano e dell'Osservatorio ... in Parma per mezzo dei passaggi di alcune stelle al primo verticale.
21 pp. 4° *Milano,* 1881

— * Sulle variazioni diurne del magnetismo terrestre risultati di osservazioni fatte a Milano negli anni 1872 e 1877.
8 plates, 60 pp. 4° *Milano,* 1884

— * Azimut assoluto ... del Monte Palanzone sull' orizzonte di Milano ...
125 pp. 4° *Milan e Napoli,* 1887

Rallier, —: Essai sur les propriétés de la nouvelle Cissoïde, ...
3 plates, viii. + 248 pp. 8° *Paris,* 1822

Ramage, John: * Description of his large Reflecting Telescopes.
2 plates, 6 pp. 4° *London,* 1826

Rambaut, A. A.: *See* Observatories. Dunsink.

Ramchundra: A Treatise on Problems of Maxima and Minima solved by Algebra.
8 plates, v.+iv.+185 pp. 8° *Calcutta*, 1850

— The same. Reprinted ... Under the Superintendence of Augustus De Morgan.
8 plates, xxiii.+v.+185 pp. 8° *London*, 1859
With a preface by A. De Morgan.

Ramée, Pierre de la: *See* Ramus, P.

Rammelsberg, Karl Friedrich: *Ueber die Meteoriten und ihre Beziehung zur Erde.
32 pp. 8° *Berlin*, 1872
In *Sammlung gemeinverständlicher wissenschaftlicher Vorträge*, ...

Ramon, Juan: Cvbvs, et sphæra geometrice dvplicata. 2 diagrams, 14+30 ff. 4° *Limæ*, 1696
Arms on title.

Ramond de Carbonnières, Louis François Elizabeth: Mémoires sur la formule barométrique de la Mécanique Céleste, et les dispositions de l'atmosphère qui en modifient les propriétés.
xii. + 275 pp. 4° *Clermont-Ferrand*, 1811

Rampinelli, Ramiro: Lectiones opticæ.
32 plates, xxxii.+242 pp. 4° *Brixiæ*, 1760
Chasles 3612.

Ramsay, William: *See* Hutton, C.

Ramsden, John: Description of an Engine for dividing mathematical Instruments.
4 plates, 2 ff.+14 pp. 4° *London*, 1777

Ramus, Christian: De principio variationis constantium arbitrariarum.
20 pp. 4° *Hauniæ*, 1851

Ramus, Jochum Friderik, & Tybring, Melchior: Jupiter Planeta cum qvatuor satellitibus ...
4 ff. 4° *Hafniæ*, 1713
Arms on title.

Ramus, Petrus: Petri Rami Meetkonst in XXVII boecken vervat. Wt het Latijn in't Neerduyts overgheset by *Dirck Hendricxz.* Houtman. Oversien ... en verklaert, door *D. Willebrordvm Snellivm* ...
10 ff.+221 pp.+2 ff. 4° *Amstelredam*, 1622
Printer's device on title. Many diagrams in text.

— De Petri Rami vita, scriptis, philosophia. Scripsit C. Waddington-Kastus.
4 ff.+205 pp. 8° *Paris*, 1848

Rancke, Andreas: De mantice cometica Dissertatio Theologica. 38 ff. 4° *Lipsiæ*, 1681

Rangone, Gherardo Aldobrandino: Memoria intorno alla vita del Marchese Gherardo Rangone letta...dal Cavaliere Giambatista Venturi...
1 plate, 2 ff.+68 pp. 4° *Modena*, 1818

Rangoni, Luigi: Sulle funzioni generatrici.
69 pp. 8° *Modena*, 1824

— Sulle funzioni generatrici memoria II.ª
81 pp. 4° *Modena*, 1824

— *Estratto di due memorie sulle funzioni generatrici. 16+2 pp. 4° *Pavia*, 1826

Ranyard, Arthur Cowper: *Note on the Presence of Particles of Meteoric Dust in the Atmosphere.
7 pp. 8° *London*, 1879

— *Note with respect to the Rate of Motion of Gaseous Matter projected from the Sun.
3 pp. 8° *London*, 1880

— Account of observations of the Total Solar Eclipse of the 29th July 1878 made at Cherry Creek Camp near Denver, Colorado. ...
1 plate, 27 pp. 4° *London*, 1881

— *See* De Morgan, A.

Ranzovius, Heinrich [Rantzau]: Tractatvs astrologicvs de genethliacorvm thematvm ivdiciis pro singulis nati accidentibus. ...
7 ff.+355 pp.+14 ff. 8° *Francofvrti*, 1593
Printer's device on title. In the following opening are the portrait and arms of the author in woodcut.

Raper, Henry: *An Instrument for determining a position between two objects. 5 pp. 8° s.l., s.a.

Raphael of Hanover, Rabbi: ... תכונת השמים ספר [The Book of the order of the Heavens.]
40 ff. 4° *Amsterdam*, A.M. 5516, A.D. 1756

Raphson, Joseph: Analysis Æquationum Universalis, seu Ad Æquationes algebraicas Resolvendas Methodus Generalis, ... *Editio Secunda* cui accessit *Appendix* de *Infinito Infinitarum Serierum* progressu ... Cui etiam Annexum est, de Spatio reali seu ente infinito, conamen Mathematico-metaphysicum.
55 pp.+4 ff.+95 pp. 4° *Londini*, 1702

Rasch, Johann: Cometen Buech. Von dem newen Stern des 73. vnnd von den Cometen des 77. vnnd 81. Jars / ... 29 ff. 4° *München* [1582]
Woodcut on title.

Rask, R.: Den gamle ægyptiske tidsregning, efter Kilderne på ny bearbejdet.
14+114 pp. 8° *København*, 1827

Rasoumovsky, G. de: Observations minéralogiques sur les environs de Vienne.
10 plates, iv.+58+2 pp. 4° *Vienne*, 1822

Rast, Georg Heinrich: De infinitis sectionibvs conicis methodo nova geometrice delineandis.
1 plate, 13 pp. 4° *Lipsiae*, 1717

Raupach, Johann Friedrich: Disquisitionum analyticarum circa Cissoidem pars prior.
1 plate, 20 pp. 4° *Petropoli*, 1806

Raxo, Francisco Fernandez: De Cometis, Et prodigiosis eorum portentis, libri quatuor.
10+96+12 ff. 4° *Madriti*, 1578

Rayet, G.: * Les cadrans solaires coniques.
1 plate, 35 pp. 8° *Paris*, 1875

— Rapport sur une mission astronomique en Italie.
20 pp. 8° *Paris*, 1876

— *See* Observatories. Bordeaux.

Rayleigh, Lord: *On the Manufacture and theory of Diffraction-Gratings. 24 pp. 8° *London*, 1874

Raymond, George Marie: *See* Pascal, B.

Rebeur-Paschwitz, Ernst von: Über die Bewegung der Kometen im widerstehenden Mittel,... Inaugural-Dissertation ...
47 pp.+"vita," 4° *Berlin*, 1883

Reccard, Gotthilf Christian: Abhandlung von der grossen Sonnen-Finsternis welche sich den 1 April 1764. ereignen wird nebst einem Anhange darin eine Mond-Finsternis und ... Finsternisse der Jupiters-Trabanten desselben Jahres ingleichen alle ... Sonnen- und Mond-Finsternisse dieses Jahrhunderts berechnet worden. Zweite vermehrte Auflage.
2 plates, 10 ff.+180 pp. 4° *Berlin*, 1764

Rechenboechelgen: In desem rechen boechelgen vynt men eyn kurten wech baldt tzu leren rechen mit den rechen pennynck vp den lyngen / na den specien Algorismi yn gantzen vnnd gebrochē süuerlich vnd nützlich alle den die dat zu leren begeren / new gedruckt jm iair 1526.
48 pp. 8° [*Colophon*]: *Gedruckt tzo Cöllen by mir Seruais Kruffter Im Jair vns herē M.D. XXVI.*

Rechperger, Wilhelm: Ivdicivm breve in præcipva capita redactvm cometæ qvi anno M.D.XCVI. ... conspectus est: ...
12 ff. 4° *Viennae Austriae*, 1596

Recht, G.: De Principiis Calculi Differentialis ...
46 pp. 8° *Monachii*, 1840

[Recorde, Robert]: The whetstone of witte, whiche is the seconde parte of Arithmetike: containyng thextraction [*sic*] of Rootes: The *Cossike* practise, with the rule of *Equation:* and the woorkes of *Surde* Nombers. ...
167 ff. 4° [*In fine*]: ¶ *Imprinted at London, by Jhon Kyngston* ... 1557.

— Records Arithmetick; Or, The Ground of Arts; teaching The perfect work and practice of Arithmetick, ... *Afterward, augmented by* M. John Dee. And since enlarged By John Mellis. And now ... corrected ...
11 ff.+535 pp. 8° *London*, 1658

Redhouse, J. W.: On the natural phenomenon known in the east by the names Sub-hi-Kazib.
11 pp. 8° *London*, 1878

Redlich, Carl: Der Astronom Meton und sein Cyclus. ... 74 pp. 8° *Hamburg*, 1854

Redtenbacher, Jacob Ferdinand: Résultats scientifiques et pratiques destinés à la Construction des Machines. Traduction de la quatrième édition de l'ouvrage allemagne ... [Atlas des Résultats ...]
41 plates, xvi. + 479 pp. 8° *Heidelberg, Paris*, 1868, *Mannheim*, 1861.

Regiomontanus, Johann [Müller, Monteregio, De Regiomonte, Köngsperg, Küngsperger]: [Kalendarium.] [Begins on the verso of fol. i. with the table of the moon's *Con* and *Oppo* for the month of January from 1475 to 1531.]
30 + 2 ff. diagrams, 4° [*Nürnberg*, 1475?] [*In fine*]: *DVCTV IOANNIS DE MONTEREGIO.*

Although the chief holidays of the Calendar are printed in red, the red figures of the lunar tables have been inserted by hand. Diagrams of eclipses are given from 1475 to 1530, in which the exposed part of the sun or moon is hand-coloured in yellow. The four diagrams appended to so many of these Calendars are 1, *Instrvmentvm horarvm inaeqvalivm*, 2, *Instrvmentvm veri motvs lvnae*, 3, *Qvadrans horologii horizontis*, 4, *Qvadratvm horarivm generale.* Of these, 1 and 3 are used with threads; 2 has two movable discs and 4 requires a jointed metal index *rivetted* to the paper. This last contrivance has done a good deal of damage to many copies. It is wanting in this one. The old Indian forms of the figures 4, 5 and 6 are used. For De Morgan's complete account of this work, see *Companion to the Almanac for 1846.*

Regiomontanus, Johann [Müller, Monteregio, De Regiomonte, Köngsperg, Küngsperger] —*cont.* [Begins on the verso of folio i. with the table of the *New.* and *Vol.* moon for the month of January, from 1475 to 1531.]

4 diagrams, 28 ff. 4° [*Nürnberg, 1475?*] [*In fine*]: *Also ist begriffen körczlich diss kalenders nucz vnd töglichait nach meinē slechten tewtsche vnd chlainem vermögen. M. Johan von köngsperg.*

The red figures in the lunar tables have also been inserted in MS. in this edition. Diagram 4 still retains the metal index, but the discs of the lunar instrument are wanting.

At the foot of the *Instrvmentvm veri lvnae* is pasted a slip with the words *In den schaltiaren an sand Mathias tag saltu die zwo scheiben förpas röcken auff xiii grad.* This is printed with the same type as the rest of the book. Excepting the legends of the diagrams, this Calendar is in German. Some of the words are very remarkable, e.g. *apostle* is *czwelifpot, zwelifpot* or *xiipot.* Old figures are used exactly as in the Latin edition but the type of the text is different.

— Questa opra da ogni parte e un libro doro.
Non fu piu preciosa gemma mai
Dil kalendario: che tratta cosi asai
Con gran facilita: ma gran lauoro
Qui numero aureo: e tutti i segni fuoro
Descripti dil gran polo da ogni lai:
Quando ti sole: e luna eclipsi fai:
Quante terre se reçe a sto thexoro.
In un instanti tu sai qual hora sia:
Qual sara lanno: giorno: tempo: e mexe:
Che tutti ponti son dastrologia.
Ioanne de monte regio questo fexe:
Coglier tal frutto acio non graue fia
In breue tempo: e con pochi penexe.
Chi teme cotal spexe
Scampa uirtu. I nomi di impressori
Son qui da basso di rossi colori.
Venetijs. 1476.
Bernardus pictor de Augusta
Petrus loslein de Langencen
Erhardus ratdolt de Augusta

4 diagrams + 26 ff. fol., 10¾ in. × 8 in.

This and the Latin edition of the same year are believed to be the first books with the printer's name and date on the title-page. Figures of the modern forms are used throughout, and the Calendar is completely printed in red and black, the names of the printers being, of course, in red. The eclipses from 1475 to 1518 are shown in diagrams. The Calendar is in Latin but all the rest is in Italian. Unfortunately the movable parts of the diagrams are wanting and the first figure, 1, has been erased in all the years.

Regiomontanus, Johann [Müller, Monteregio, De Regiomonte, Köngsperg, Küngsperger] —*cont.* [Begins]: In laudem operis kalendarij. s. huius Johanne de monte regio editi ... Jacobi Sontini Ricinensis Carmina. ...

4 diagrams + 26 ff. 4° [fol. i. verso]:
Hoc augustensis ratdolt germanꝯ erhardus
Dispositis signis vndique pressit opus.
Anno. S. 1482. Idus 5. Augusti. Venetijs.

The eclipses are figured from A.D. 1483 to 1530. This copy still retains the metal index to the *Quadratū horariū generale.* Printed in black and red. Bordered title.

— Kalendarium magistri Joannis de monteregio viri peritissimi.

4 diagrams, 26 ff. 4° [*In fine*]: *Kalendariū ... Johānis de monteregio explicit feliciter Erhardi ratdolt ... eximia industria: ꝛc mira impʼmēdi arte: qua nup venetijs: nūc auguste vindelicoꝝ excellit noīatissimꝯ. xij. kal. Aprilis. 1489.*

The tables of Conjunction and Opposition as well as the Calendar are fully printed in black and red, modern figures being used throughout. The eclipses extend from A.D. 1489 to 1530.

This copy is also complete as regards the metal index and the pair of revolving discs.

— Tabule directionū profectionūqꝫ famosissimi viri Magistri Joannis Germani de Regiomonte in natiuitatibus multum vtiles. [Tabella Sinus recti: per gradus ꝛc singula minuta diuisa. ...]

137 + 16 ff. 4° [*In fine*]: *Opus tabularum directionum ... per ... Joannem de Regiomonte compositaꝝ Anno dñi. 1467. explicit feliciter. Magistri Joannis angeli ... correctione. Erhardique Ratdolt mira imprimendi arte: qua nuper Venetijs nunc Auguste vindelicorum excellit ... 1490.*

— Kalendarium magistri Joannis de monteregio viri peritissimi.

4 diagrams + 26 ff. 4° [*In fine*]: *Kalendariū ... explicit feliciter Erhardi ratdolt ... impʼmendi arte: qua nup venetijs: nunc auguste vindelicorum excellit ... 1492.*

The two movable discs of the *Instrumentum veri motus Lune* are still in this copy. The figured eclipses range from A.D. 1493 to 1530.

Chasles 3350.

— Epytoma Joānis De mōte regio Jn almagestū ptolomei.

108 ff., last blank, fol. [*In fine*]: ... *Opera ... Johannis hāman de Landoia: dictus hertzog: felicibus astris expletum. ... Anno salutis. 1496. currente: ... Venetijs: ...*

Title in large letters. Full-page woodcut of the sphere within woodcut border.

Regiomontanus, Johann [Müller, Monteregio, De Regiomonte, Köngsperg, Küngsperger] —*cont.* Ephemerides sive Almanach perpetuuꝫ.

122 ff. 4° [*In fine*]: ¶ *Expliciunt Ephemerides Solis ☌ lune planetarumque perpetue impensis opera ... Petri Liechtenstein coloniensis explete Anno ... 1498 Idibus Octobris Venetijs ...*

Edited by Johann Lucilius Santritter.

— Kalendarius cum vero motu solis ☌ duplici modo inueniendi verum motum lune. vulgari. scz per litteras. ☌ astronomico perspicacissimi astronomi magistri Joannis de Monte Regio. Nec non vere coniunctiones solis ☌ lune eclipsesq; eorundem. cum quibusdam alijs cognitu maxime necessarijs. Postq; omnia subnectitur cōputus ecclesiasticus chyrometralis in capittula perpulchre distinctus. 18 ff. 4° s.l. [1502]

Rude woodcut on title-page. Two woodcuts and one volvelle in text.

Roman numerals and black ink are used throughout. On the last page is a table of eclipses from A.D 1502 to 1530 inclusive.

— [Begins]: In laudem operis Calendarij a Joanne de monte regio ... editi Jacobi Sentini Ricinensis Carmina.

4 diagrams+26 ff. 4° [On verso of f.*a.i.*]: *Hoc opus ... ex officina Petri Liechtenstein ... prodijt. Anno ... 1507.*

Red and black ink used in the Calendar. Eclipse figures printed in black for A.D. 1483 to 1530.

— In laudem operis Calendarij a Joanne de monte regio ... editi Jacobi Sentini Ricinensis Carmina.

4 diagrams+26 ff. 4° *Anno. 1514. Ex officina Petri Liechtenstein.*

Calendar printed in red and black. The eclipses again extend from A.D. 1483 to 1530.

— KAlendarius teütsch Maister Joannis küngspergers

DAs büchlin behend du billich lernen solt
Vnd es achtē für edel gestain silber vñ gold ...

77 ff. 4° [*In fine*]: ... *Enndet sich diszer Kalendarius Maister Joannis Küngspergers. vnd auch Higinius. Von den 12 zaychen vñ 36 pildern des himels | ... Getruckt in der kaiszerlichen stat Augspurg. Am. xiiij. kalendas. Januarij. Der iar zal Christi. M.D.xiiij. Laus Deo.*

Title in woodcut border. Folios 25 and 26, 27 and 28 are pasted together. Many woodcuts and diagrams in addition to the *36 pildern.*

— Ioannes de Monteregio ... de Cometæ magnitudine longitudineq; ac de loco eius uero, problemata XVI. ...

12 ff. 4° *Norimbergæ apud Fridericum Peypus, Anno D.M.XXXI.*

Diagrams in text.

Regiomontanus, Johann [Müller, Monteregio, De Regiomonte, Köngsperg, Küngsperger] —*cont.* Ioannis Regiomontani Franci ... Fvndamenta operationvm, qvae fiunt per tabulam generalem: Vel, Apodixes & demonstrationes eorum, quæ in tabulis primi mobilis, cum tabulis Eclipsium Burbachij ... editis à Tanstetero, præcepit, ... nunc primum editæ. ...

38 ff., two last blank, fol. *Nevbvrgi ad Danvbivm*, 1557.

Title in three compartments.

Diagrams in text. Arms on *verso* of title.

— Ioannis Regiomontani ... de triangvlis planis et sphaericis libri quinque, unà cum tabulis sinuum, ... *Omnia nunc simul in lucem edita ... per* Danielem Santbech *Nouiomagum.*

4 ff.+146 pp.+19 ff. fol. *Basileae* [1561]

Diagrams in text.

— *See* Bose, G. M.
Brahe, Tycho, 1654.
Ephemerides.
Murr, C. G. von.
Ptolemy, Cl.
Purbach, G.

Regnarius, Israel: Bonô cum Jehova. Contingentia nova, Oder Newer Teutscher Post Reuter / Welcher vermöge vnd nach anleitung des Gestirnten Himmels ... referiret, was ... sich zutragen könte. Auff das Jahr ... M.DC. XXXIX. 8 ff. 4° [*Hamburg*, 1638]

Regnault, Henri Victor: * On the Elastic Forces of Aqueous Vapour.

1 plate, 47 pp. 8° *London*, 1846

— * Hygrometrical Researches.

1 plate, 55 pp. 8° *London*, 1846

Régnier, Jacomy: Histoire des nombres et de la numération mécanique. 102 pp. 8° *Paris*, 1855

Reichenbach, Karl von: Physico-Physiological Researches on the Dynamics of Magnetism, Electricity, Heat, Light, Crystallization, and Chemism, in their relations to Vital Force. ... from the German second edition. With ... critical notes by John Ashburner.

xx.+290 pp. 8° *London*, 1850

— * Meteoriten in Meteoriten.

2 plates, 34 pp. 8° *Berlin*, 1860

— * Meteoriten und Sternschnuppen.

15 pp. 8° *Berlin*, 1860

Reichenbach, O.: Two planets beyond Neptune and the motion of the solar system. A speculation. 15 pp. 8° *London*, 1875

Reidt, Friedrich: Sammlung von Aufgaben und Beispielen aus der Trigonometrie und Stereometrie. I. Theil. Trigonometrie. [II. Theil. Stereometrie.] 2 vols.
xi.+228 pp., vii.+156 pp. 8° *Leipzig*, 1872

Reimer, Nicolaus Theodor: Historia problematis de Cvbi Dvplicatione sive de inveniendis dvabvs mediis continue proportionalibvs inter dvas datas.
2 plates, xvi. + 222 pp. 8° *Gottingae*, 1798

Reinhardt, Curt: Mag. Georg Samuel Dörffel. Ein Beitrag zur Geschichte der Astronomie im 17. Jahrhundert. Inaugural-Dissertation ...
77 pp.+"vita," 8° *Plauen i. V.*, 1882

Reinhart, August Wilhelm: *See* Bücher, C. B.

Reinhold, Erasmus: Themata qvae continent methodicam tractationem de Horizonte rationali ac sensibili, ...
16 ff., last blank, 8° *Vitebergae* [*per Iosephum Klug*] 1544.

— Prutenicæ tabvlæ coelestivm motvvm. [Initivm canonvm Prvtenicorvm.] [Seqvvntur igitvr nvnc canones tvm mediorvm sev aeqvalium motuum, tum Prosthaphæreseon, denią, alij Canones quorum Catalogus supra recitatus. Hos avtem omnes canones Επoχαί æqualium motuum recte antecedunt 1585.]
3 tables, 8+68 ff., 13 ff., 142 ff. 4° *V Vitebergæ*, 1585.
Printer's device on title.

— *See* Purbach, G.

Reinman, Johann Caspar: Desz Newen Europæischen Postreuters Laggey vnnd Nebenlauffer / Als Der da...verkündiget / was sich vermuthlich Durch dieses nechstfolgende gantze Jahr ... zutragen möge....M.DC.XXXIX. Ausz Astrologischen vnd natürlichem Fundament / ... beschrieben. 14 ff. 4° s.l., 1639

Reinsch, Paul: Die Meteorsteine. Die Ergebnisse der seitherigen Beobachtungen über die ... Zusammensetzung ... und den Ursprung derselben. 1 litho., 22 pp. 4° *Zweibrücken*, 1869

Reisacher, Wilhelm: Disputatio Philosophica, De Meteoris, ... qvæ in mvndo elementari cvm admiratione qvandoque eueniunt; ...
3 ff.+29 pp.+2 ff. 4° *Ingolstadii*, 1588
The president was Balthasar Hagel.

Reisch, Gregor: Margarita Philosophica.
3 woodcuts, 310 ff. 4° [On verso of title]: *Suo Gregorio Reisch ... Adam Vuernherus ... salutem ... Ex Heydelberga ... M.CCCC.lxxxxvi.*
Woodcut on title. Numerous woodcuts in text.
Hain 13852.

— Margarita Philosophica noua cui insunt sequentia. Epigrammata in cōmendationem operis. Institutio Grammaticę Latinę ... Moralis Philosophia cū figurȩ. [De compositione Astrola.] [Appēdix Matheseos in Margaritā philosophicā ...]
1 map, 272+38 ff. 4° *Argentinę*, 1512. [*In fine*]: *Accipe ... Margaritam Philosophicam iam denuo recognitam ... Ita et presentis operis lectio multa aliorum scripta opera prestare iudicatur. Cum quo te bene valere ... Joannes grüningerus operis excussor ... prȩcatur. Ex Argentorato veteri ... Anno ... duodecimo supra mille quingentos.*
Title in woodcut border. Many woodcuts in text.

— Margarita Philosophica noua Cui annexa sunt sequentia. Grecarum literaꝫ institutiones. ... Quadrantū varie cōpositiōes. Astrolabii noui geographici ɔpō. ... Cartha vniuersalis terre ...
2 maps, 328 ff. 4° [*In fine*]: ... *Ex Argentorato veteri ... Anno ... decimoquinto supra mille quingentos.*
Title in woodcut border. Many woodcuts in text.

— Margarita Philosophica cū additionibus nouis: ab auctore suo studiosissima reuisione quarto superadditis. Anno ... M.D.XVII.
3 woodcuts, 300 ff. 4° [*In fine*]: *Margaritam Philosophicam ... Michael Furterius impssit Basilee. Anno 1517 ...*
Title in woodcut border.

Reisen in den Mond: *See* Astronomical Curiosities.

Reissig, Jacob, Tenner, K., und Reutzel, Joh.: Tafeln zur Berechnung der Coordinaten ohne Logarithmen bei Gemarkungs- ... Vermessungen ...
2 plates, 6 ff.+xxx.+202 pp. 4° *Heidelberg*, 1830.

— The same. Zweite Auflage.
2 plates, 4 ff.+xxx.+202 pp. 4° *Heidelberg*, 1854.

Reita, Anton Maria Schyrl de: Ocvlvs Enoch et Eliæ sive radivs sidereomysticvs planetarv̄ veros motvs solo excentrico tradens nova et ivcvnda continens Conditorem sidervm eivsqve perfacta visibilia magnalia prædicans. ... [Ocvlvs ... Pars Prima ... *Opus* ... Quo omnium Planetarum veri motus, ... tam in Theoria Tychonica, quàm Copernicana ... demonstrantur ... Hisce accesservnt *Nouæ harmonicæ determinationes molium ... Planetarum ... Probabilissima causa fluxus & refluxus Oceani. Ratio breuis conficiendi Telescopium astronomicum. Et vltimò Planetologium ...*] [Ocvli ... Pars Altera sive Theo-Astronomia; ...]

10 plates, 26 ff.+356 pp.+8 ff.+279 pp.+14 ff. fol. *Antverpiæ*, 1645.

Engraved title.
Chasles 3267.

— *See* Penneman, F.

Reitlinger, Edmund: *See* Kepler, J., 1868.

Rembrantz, Dirck.: Een kort By-Voeghsel Op de Friesche Sterre-konst / Dienende tot nader verklaringe over de sestien Leer-stucken des tweeden Boecks: ... 45 pp. 8° *Harlingen*, 1660

Diagrams in text.

Renaldini, Carlo: Caroli Renaldini ... Opvs algebricvm In quo præter Communem, & antiquam Algebram Noua quoque pertractatur; ... Ars analytica *Quam perobscurè* Franciscvs Vieta *literis mandauit*, ... Methodus ... Resolutionis, atq; Compositionis Mathematicæ explicatur. ...

4 ff.+290 pp.+1 f. 4° *Anconæ*, 1644

Printer's device on title. Diagrams in text.

— Caroli Renaldinii ... Opvs mathematicvm in qvo *Vtraque Algebra ... illustratur.* Methodus quoque Resolutionis, & Compositionis Mathematicæ ... declaratur. *Pars prior Numerosam Algebram complectens.*

12 ff.+475 pp.+1 f. 4° *Bononiæ*, 1655

— Caroli Renaldinii ... Ars analytica mathematvm in tres partes distribvta, *qvarvm* Prima Veterum Analystarum, Secunda, Recentiorum Doctrinam locupletatam complectitur; ... Tertia, Demum in maiorem Artis illustrationem Theoremata ... resoluta exhibet. ... 3 vols.

Frontispiece, 3 ff.+534 pp.+17 ff. fol. *Florentiæ*, 1665.

248 pp.+9 ff. fol. *Patavii*, 1669

4 ff.+136 pp.+4 ff. fol. *Patavii*, 1684

Renaldini, Carlo—*cont.* Caroli Renaldinii ... De Resolutione, & Compositione Mathematica. Libri dvo. ...

4 ff.+535 pp.+14 ff. fol. *Patavii*, 1668

Diagrams in text.
Two copies, one only with errata on the last page of the *Index Capitvm.*

— Caroli Renaldinii ... Geometra Promotvs ...

88 pp.+1 f. fol. *Patavii*, 1670

Diagrams in text.

— Caroli Renaldinii Ad Artem, quam ipse conscripsit Mathematvm Analyticam Paralipomena. ...

300 pp. fol. *Patavii*, 1682

Diagrams in text.

— Caroli Renaldinii Commercivm epistolicvm: ...

111 pp. fol. *Patavii*, 1682

Diagrams in text.
Contains figures of Saturn and observations of Comet 1677.

Rendorp, Willem: Theses philosophicæ inaugurales ... [De natura fluidorum. De magnetismo telluris. De experimento Dufayano circa magnetem. Quaedam de lineis parallelis.]

2 ff.+39 pp. 4° *Lugduni Batavorum*, 1789

Renieri, Vincenzo: Tabvlæ motvvm cælestivm vniversales ... *Nunc vero auctæ, recognitæ, atque ... recusæ. Quibus Planetarum calculus iuxta ... Alphonsum Regem, Copernicum, atque Tychonem facili methodo exhibetur, & Alphonsini, Prutenici, Danici, Rudolphini Lansbergianique Canones continentur.*

4 ff. + lx. + 364 pp. fol. *Florentiæ*, 1647

Rensberger, N.: *See* Nicolaus Rensbergensis.

Repertorium: Repertorium für physikalische Technik für mathematische und astronomische Instrumentenkunde. Herausgegeben von Ph. Carl. Erster [-Dritter] Band. ... 3 vols.

8° *München*, 1866, '67, '67

— Repertorium für Experimental-Physik, für physikalische Technik, mathematische & astronomische Instrumentenkunde. Herausgegeben von Ph. Carl. Vierter [-Achtzehnter] Band. ... 15 vols.

8° *München* [*München und Leipzig*] 1868-82

— Repertorium der Physik. Herausgegeben von F. Exner. Neunzehnter [Zwanzigster] Band. 2 vols. 8° *München und Leipzig*, 1883, '84

— Repertorium für Experimental-Physik, ... General-Register zu Band I.-XV.

71 pp. 8° *München und Leipzig*, 1881

Repp, Thorl. Gudm.:
See Dictionaries. English—Danish.

Resal, Amé Henri: Traité de cinématique pure.
xv.+412 pp. 8° *Paris*, 1862

Reslhuber, Augustin: Bericht über die Kometen von den Jahren 975, 1264 und 1556.
22 pp. 8° [*Linz*, 1857]

— Leistungen eines nach der Erfindung des Herrn K. Kreil, construirten Kupferdraht-Thermometrographen. 8 pp. 4° *Wien*, 1858

Respighi, Lorenzo: * Intorno l'influenza del moto dei mezzi rifrangenti sulla direzione dei raggi luminosi. 28 pp. 4° *Bologna*, 1863

— * Sulla latitudine dell'osservatorio della romana università sul Campidoglio.
44 pp. 4° *Roma*, 1868

— * Sulla velocità della luce dedotta dagli eclissi dei satelliti di Giove e dall'aberrazione delle stelle. 17 pp. 4° *Roma*, 1868

— * Sulla scintillazione delle stelle. 2 parts.
17 pp., 19 pp. 4° *Roma*, 1868, '69

— * Sulle osservazioni spettroscopiche del bordo e delle protuberanze solari fatte all'Osservatorio della Università romana sul Campidoglio. Nota I. [-IV.] 4 pts.
1 plate, 20 pp., 11 pp., 4 plates, 53 pp., 12 pp. 4° *Roma*, 1870, '71.

— Sul Cannocchiale Zenitale dell'Osservatorio della R. Università sul Campidoglio.
1 plate, 20 pp. 4° *Roma*, 1871

— * Sulla costituzione fisica del sole.
14 pp. 4° *Roma*, 1871

— * Osservazione dell'eclisse totale del 12 Decembre 1871 a Poodoocottah nell'Indostan.
1 plate, 23 pp. 4° *Roma*, 1872

— * Sulla Nota del prof. P. Secchi, intitolata= Sull'ultima eclisse del 12 Dicembre 1871.
14 pp. 4° *Roma*, 1872

— * Catalogo delle declinazioni medie pel 1875.0 di 1463 stelle comprese fra i paralleli 20° e 64° nord compilato sulle osservazioni fatte al circolo meridiano del R. Osservatorio del Compidoglio negli anni 1875, 1876 e 1877.
90 pp. 4° *Roma*, 1880

Respighi, Lorenzo, e Celoria, Giovanni: * Operazioni eseguite nell'anno 1879 per determinare la differenza di Longitudine fra gli osservatori astronomici del Campidoglio in Roma e di Brera in Milano. 67 pp. 4° *Milano*, 1882

Reuleaux, F.: The Kinematics of Machinery. Outlines of a Theory of Machines. Translated and edited by Alex. B. W. Kennedy.
622 pp. 8° *London*, 1876
Illustrated.

Reuss, Jeremias David: Repertorium Commentationum a societatibus litterariis editarum. Scientia naturalis. *Astronomia.*
viii. + 548 pp. 4° *Gottingae*, 1804

— Repertorium Commentationum a societatibus litterariis editarum. ... *Mathesis; Mechanica;* ... *Scientia Militaris.*
xiv. + 514 pp. 4° *Gottingae*, 1808

Reutzel, Johann: *See* Reissig, J.

Rey, Francisco Rodriguez: Transito de Venus diciembre 6 de 1882 ...
7 pp. 4° *México*, 1882
From *El Minero Mexicano*, Nov. 30, 1882.

Reye, Theodor: Die Wirbelstürme, Tornados und Wettersäulen in der Erd-Atmosphäre mit Berücksichtigung der Stürme in der Sonnen-Atmosphäre ...
Frontispiece, 5 charts, 2 plates, xvi.+248 pp. 8° *Hannover*, 1872.

Reyher, Andreas: Arithmetica Oder Rechen-Büchlein / zum einfältigsten und deutlichsten /...
160 pp. 8° *Gotha*, 1670

Reyher, Samuel: Bacilli sexagenales, i.e. Descriptio Logisticæ Sexagenariæ per Bacillos exercendæ, ... *De Meridianorum sive Longitudinum differentiis* ...
4 ff. + 64 pp. 4° *Kiliæ*, 1688

— Disputatio mathematica, Quam ... de Muniendi *tàm Vetere, quàm Novo Naturalibus* modis ... *habebit* Joh. Christophorus Krüsike ...
1 f.+16 pp. 4° *Kiliæ*, 1702

— Disputatio mathematica, *Quam* ... de Perpendiculo, cultellatione & chorobate, *Ac in specie De* Horologiis automatis, *Perpendiculo moderandis*, ... *defendet* Matthias Bütser.
1 plate, 24 pp. 4° *Kiliæ*, 1705

[Reyneau, Charles Réné]: Analyse démontrée, ou la methode de resoudre les problêmes des mathematiques, et d'apprendre facilement ces sciences; ... *Par un Prêtre de l'Oratoire.* Tome I. [Usage de l'analyse ... Tome II.] 2 vols.

5 plates, 3 ff. + xxiv. + xxviii. + 914 pp. 4° *Paris*, 1708.

[—] La science du calcul des grandeurs en general, ou les elemens des mathematiques. *Par l'Auteur de l'Analyse Démontrée.*

lviij. + 440 pp. 4° *Paris*, 1714

Reynolds, John: *On the Principle and Construction of Railways of continuous Bearing.

1 plate, 14 pp. 4° *London*, 1838

Rhæticus, Georg Joachim [Rheticus]: Opvs Palatinvm de Triangvlis a Georgio Ioachimo Rhetico coeptvm: L. Valentinvs Otho principis palatini Friderici IV. ... mathematicvs consvmmavit.

[Georgii Ioachimi Rhetici de triangvlis globi cvm angvlo recto.] 140 pp. 1596

[L. Valentini Othonis ... de triangvlis globi sine angvlo recto libri qvinqve. ...]

2 ff. + 341 pp. [*Colophon*]: *Neostadii in Palatinatv. Excudebat Matthæus Harnisius ... CIↃIↃXCVI.*

[L. ... Othonis ... Meteoroscopivm nvmerorvm primvm ...] 91 pp. 1596

[Georgii Ioachimi Rhætici magnvs canon doctrinæ triangvlorvm ad decades secvndorvm scrvpvlorvm et ad partes 10000000000.] 554 pp. s.a.

[Georgii ... Rhetici libri tres de fabrica canonis...] 85 pp. 1596

[Georgii ... Rhetici de triqvetris rectarvm linearvm in planitie liber vnvs. ...]

pp. 86 to 104, 1596

[Tertia series magni canonis ... in qvo triqvetri cvm angvlo recto in planitie ... ponitur partium 10000000.] 181 pp. s.a.

[Georgii ... Rhætici magnvs canon doctrinae triangvlorvm ... Recens emendatus à Bartholomæo Pitisco Silesio. Addita est brevis commonefactio de fabrica & vsu huius Canonis ... *Canon hic ... etiam separatim ab opere Palatino venditur.*] 554 pp. *In Bibliopoleio Harnischiano.*

19 pp. *Neostadii*, 1607

fol. [*Neostadii in Palatinatu*] 1596

Bound in three volumes.

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72 ff., last blank, 8° *Zu Francfurt, Bei Christian Egenolph* [*An. M.D.XXXV.*]
Woodcut on title.

— REchenbuch / Auff Linien vnd Ziphren / Inn allerley Handtierung / ... Mit newen künstlichen Regeln ... gemehret ... Visier vnd Wechselruten ... zumachen / ausz dem Quadrat / ... Von Erhart Helm ...
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— Ludovici a Ripa ... Dissertatio meteorologica. Cui accedit *Solutio & Constructio Duorum Problematum Geometricorum.*
1 plate, 6 ff.+lviii.+xv. pp. 4° *Venetiis*, 1733
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22 pp. 8° *Edinburgh*, 1873

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6 pp. 4° *Edinburgh*, 1826

— *Experimental Researches in Voltaic Electricity and Electro-Magnetism.
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54 ff. 4° [*In fine*]: ¶ *Impressum in oppido Tridini ... in edibus domini Joannis de ferrarijs: al's de Jolitis Anno ... Mcccccxiij. die. x. septembris.*

— Avgvstini Ricij, de motu octauæ Sphæræ, Opus Mathematica, atq; Philosophia plenum. ... Eiusdem de Astronomiæ autoribus Epistola.
51 + 1 pp. 4° *Imprimebat Lvtetiæ Simon Colinæus*, 1521.
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Ritter, Élie: Manuel théorique et pratique de l'application de la Méthode des Moindres Carrés au calcul des observations.
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Ritter, L. F.: Anleitung zur Auflösung, ... der wichtigsten Aufgaben ... der ... Zins- und Zeitrenten-Rechnung. ...
xiii.+126 pp. 4° *Stuttgart*, 1846

Rivander, Zacharias: Von dem Newen Cometstern welcher das vergangene 1580. jar gesehen worden ... 12 ff. 4° *Wittemberg*, 1581
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Rive, Auguste de la: Dissertation sur la partie de l'optique qui traite des courbes dites Caustiques.
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32 pp. 8° *Paris*, 1825

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— Auguste de la Rive Notice biographique par J. Louis Soret.
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— *See* Poisson, S. D., 1835.

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De Terræ motv libellvs Flaminij de Mezauachis ... 35 pp.
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Robin, Édouard: Loi nouvelle régissant les différentes propriétés chimiques.
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— *[... an account of a large reflecting telescope, lately constructed by Lord Oxmantown ...]
11 pp. 8° *Dublin*, 1840

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— * Effects produced by the vicinity of a Railroad; being the result of four years' experience at the Armagh Observatory.
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3 pp. 8° *Edinburgh*, 1840

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Chasles 1987.

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80 ff. 8° [*In fine*]: *Stampato in Vinegia per Giouanni Padoano. ... M.D.XLIIII.*
Title in red ink in woodcut border. Woodcuts.

[Rocha, Giovanne]—*continued.* Libro Dabaco che isegna a fare ogni rasone mercatātile ⁊ a ptegare le terre cō larte di la geometria: ...
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[—] Libro Dabaco che insegnia a fare ogni raxone marcadantile & apertegare le terre con larte di la giometria ... 80 ff. 8° [*Venetia*] s.a.
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Roche, Édouard: * Note sur la variation de la pesanteur à l'intérieur de la terre.
1 plate, 18 pp. 4° [*Montpellier*, 1855]

— * Recherches sur les atmosphères des Comètes.
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Roche, Etienne de la: ¶ Larismethique nouellement composee par maistre Estienne de la roche dict Villefrāche natif de Lyō sus le Rosne diuisee en deux parties dont la p̄miere tracte des ꝑprietes ꝑfectiōs et regles de la dicte sciēce: cōme le nōbre entier: Le nōbre rout: La regle de troys: La regle dune faulse position: De deux faulses positiōs: ... ¶ La secōde tracte de la practique dicelle applicquee en fait de mōnoyes: ...Et en geometrie applicquee aux ars mechāiques cōme aux massons charpētiers et a tous aultres besongnās en art de mesure.
4+230 ff. fol. [*In fine*]: ¶ *Cy finist larismetique de maistre Estienne de la roche ... Imprimee par Maistre guillaume huyon. Pour Constantin fradin marchant ⁊ libraire du dict Lyon. Et fut acheuee lan. 1520. le. 2e. de Iuing.* ...
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Rochon, Alexis Marie de: Recueil de mémoires sur la mécanique et la physique.
10 plates, xiv.+xxxii.+384 pp. 8° *Paris*, 1783

Rodgers, John: Total Solar Eclipse of 1878, July 29. Notice to intending Observers.
2 pp. 4° *Washington*, 1878

Rodrigues, Olinde: * Note sur l'évaluation des arcs de cercle, en fonction linéaire des sinus ...
10 pp. 4° *Paris*, 1843

— * Du développement des fonctions trigonométriques en produits de facteurs binomes.
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Röder, J. P.: *See* Löhe, J. C.

Röell, Willem Frederik: Dissertatio...inauguralis de Congelatione, ...
4 ff. + 132 pp. + 3 ff. 4° *Lugduni Batavorum*, 1790.

— Specimen juridicum inaugurale exhibens Propositiones quasdam.
2 ff.+19 pp. 4° *Lugduni Batavorum*, 1791

Röhl, Lampert Heinrich: Von der Sonnen-Parallaxe und ihrer Bestimmung aus dem Durchgange der Venus durch die Sonnenscheibe ...
1 plate, 32 pp. 4° *Greifswald*, 1761

Römer, Ole: * De Crassitie et Viribus tuborum in aquæductibus; ut et experimentis circa altitudines et amplitudines projectionis corporum gravium. A. D. Romer anno 1680.
5 pp. 4° *Amsterdam*, 1736

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— Ad locum Plinii, ex Libr. II. Cap. XIII. Exercitatio Mathematica *De* Admiranda vi refractionis circa defectus Lunæ horizontales, ...
14 ff. 4° *Wittenbergæ*, 1681
Nicolaus Garleffus Cadovius was the respondent.

— Ex historia naturali *De* Mundo, ...
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Roesler, Theophil Friedrich: De Cometis, ...
1 plate, 35 pp. 4° *Tvbingae*, 1759

Rœslin, Helisæus: Theoria nova Coelestivm ΜΕΤΕΩΡΩΝ, ...
1 chart, 33 ff. 4° *Argentorati*, 1578
For fuller title *see* p. 116.

— Historischer / ... Discurs Von heutiger zeit Beschaffenheit / ... Aus anleitung dero von *Anno 1600.* her ... erschienenen grossen Wunderzeichen / sonderlichen desz Cometens anno 1607. genommen. 8+52 ff. 4° *Straszburg*, 1609

Röthig, O.: * Das Potential eines homogenen rechtwinkligen Parallelepipedums.
12 pp. 4° *Berlin*, 1861

Rogers, William A.: * On the limits of accuracy in measurements with the telescope and the microscope. 22 pp. 8° *Boston*, 1878

— * Standard Measures of Length. 8 pp. 8° *New York*, 1879

— On two forms of Comparators for Measures of Length. 12 pp. 8° *New York*, 1879

— * Catalogue of 618 Stars observed at the Astronomical Observatory of Harvard College, ... 1871-2, 1874, and 1875, ... 29 pp. 4° *Cambridge*, 1880

— * On the present state of the question of Standards of Length. 40 pp. 8° *Boston*, 1880

— * Catalogue of 1213 stars observed at the Astronomical Observatory of Harvard College ... 1870 to 1879. vii.+93 pp. 4° *Cambridge*, 1884

— *See* Observatories. Cambridge, Mass. Montreal.

Roget, Peter Mark: * Explanation of an optical deception in the appearance of the spokes of a wheel seen through vertical apertures. 1 plate, 10 pp. 4° *London*, 1825

[—] [The Article on "Galvanism," from the Encyclopædia Metropolitana.] 1 plate, 52 pp 4° *London*, s.a.

Rogg, J.: *See* Bibliography.

Roggatz, Max: Einige Anwendungen der Theorie der Hyperbolischen Funktionen. Inaugural-Dissertation. 2 plates, 44 pp. 8° *Göttingen*, 1876

Rogner, Johann: Materialien zum Gebrauche bei und nach dem Unterrichte aus der Höheren Analysis. ... xiv.+463 pp. 8° *Gratz*, 1853

Rohault, Jacques: Oeuvres postumes. Tome premier [second]. 2 vols. 20 ff.+424 pp., 464 pp. 12° *La Haye*, 1690

Rohde, Johann Philipp: Ueber Laplace's neue Verbesserung der aus barometrischen Beobachtungen berechneten Berghöhen. 1 plate, 25 pp. 4° *Halle*, 1803

Rohde, Levin Joergen: Systême complet de Signaux de jour et de nuit, à l'aide des moyens les plus simples qui se trouvent ordinairement à bord de chaque batiment, ... xxvii.+245 pp. 8° *Paris*, 1835

Rohleder, Zacharias: De Luna ... 8 ff. 4° *Wittenbergæ*, 1656

Rohlfs, Nicolaus: Künstliches Zahlen-Spiel, oder Gründliche Anweisung Wie die so genannten Magischen-Quadraten, ... zu verfertigen sind, ... 32 pp. 4° *Buxtehude*, 1742

[Rolewinck, Werner]: [Folio *a. j.* begins]: [G]Eneratio ꝛc generatio laudabit opera tua: ...

[Folio *a. ij.* begins]: Fasciculus tpm oēs antiq̊q cronicas ꝯplectens. admissus ab alma vniuersitate Colonieñ. īcipit feliciter [Tabula breuis ꝛc vtilis super libello ...] 65 + 8 ff. fol. s.l., s.a.

Woodcuts in text.

In a MS. note on the fly-leaf it is surmised that this edition was printed by *Georg Grüninger* in *Strassburg*.

Rolland, —: *See* Poncelet, J. V.

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12 + 39 pp. 12° *London*, 1811

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Sabinus, G.: Georgii Sabini Brandebvrgensis poemata. ...
116 ff. 8° [*Colophon*]: *Argentorati apvd Cratonem Mylivm ... M.D.XXXVIII.*

See Comets, p. 113.

Sacrobosco, Johannes de: Iohannis de sacrobusto anglici uiri clarissimi Spera mundi feliciter incipit. [Gerardi cremonensis uiri clarissimi Theorica planetarū feliciter incipit.]

48 ff. 4° [*In fine*]: ... *Impressa Venetijs per Franciscū renner de Hailbrun. M.CCCC.LXXVIII.* ...

Printed in Roman characters. The second work begins with fol. e 1.

[—] The same. [Begins]: Tractatus de motu octaue spe ... 4 ff. 4°

Two diagrams. Incomplete.

Probably the four last leaves of an earlier edition than the preceding. Roman type, interesting for its very many abbreviations. The first page ends with *duo*.

— [Begins]: Nouicijs adolescētib9: ad astronomicā remp: capessendā aditū impetrātib9: ꝑ breui rectoq; tramite a vulgari vestigio semoto: Joannis de sacro busto sphęricū opusculū. Cōtraq; cremonēsia ī planetaꝝ theoricas delyramēta Joānis de mōte regio disputationes tā acuratiss. q̄; vtiliss. Necnō georgij purbachij ī eorūdē mot9 planetaꝝ acuratiss. theoricę: dicatū op9: vtili serie ɔtextū incohat.

60 ff. 4° [*In fine*]: *Impressum hoc est opusculū mira arte ⁊ diligentia Erhardi Ratdolt Augustensis. 2. Noñ. Julij Anno Salutis* 1482.

Printed in Gothic type. The first folio has merely a diagram of the *Sphaera Mundi* on its *verso*. Many diagrams in the text. Both in this and the two following editions the eclipsed moon is coloured red.

— Spaerae mvndi Cōpendiū Foeliciter inchoat. Nouiciis adolescentibus: ... Johānis de sacro busto sphæricū opusculū una cū additionib9 nōnullis littera A sparsim ubi intersertæ sint signatis Contraq; cremonensia in planetaꝝ theoricas delyramenta Iohānis de mōte regio disputatiōes tā acuratiss. q̄; utiliss. Nec nō Georgii purbachii ī eorūdē mot9 planetaꝝ acuratiss. theoricæ: dicatum opus: utili serie contextum fausto sidere inchoat.

68 ff. 4° [*In fine*]:

Vranie quantū quantū debere fatentur
Cuncta canopeo: cognitaque astra uiro
Santritter helbronna lucili ex urbe Iohannes
Schemata sic debent ipsa reperta tibi ...
Anno Salutis. M.cccc.lxxxviii. completū est. Venetiis.

On the back of the first folio is a large woodcut representing *Vrania*, *Astronomia* and *Ptolemæus*. There are also many diagrams in the text.

Sacrobosco, Johannes de—*cont.* SPHAERAE mondi compēdium fœliciter inchoat. Nouiciis adoloscētibus: ... Ioānis de sacro busto sphæricū opusculū una cū additiōibus nōnullis ...

48 ff. 4° [*In fine*]: ... *Impressum est Venetiis per Magistrum Gullielmum de Tridino de Monteferrato Anno Salutis. M.cccc.lxxxxi.* ...

On the first page stands *SPHAERA MVNDI*, and on the second the woodcut of *Vrania*, *Astronomia* and *Ptolemæus*. Many diagrams in text.

— Sphera Mundi cū tribus Commentis nuper editis vz. Cicchi Esculani Francisci Capuani de Manfredonia Jacobi Fabri Stapulensis.

86 ff. fol. [*In fine*]: ¶ *Impressum Venetiis per Simonem Papiensem dictum Biuilaquam & summa diligentia correctum: ut legentibus patebit. Anno Cristi Siderum conditoris. MCDXCIX.* ...

Many diagrams.

In unbroken sequence of sheets follows Purbach's *Theoricae nouæ planetarū*, which *see*. There is apparently no title common to the two works.

— Algorismus Domini Joānis De Sacro Busco Nouiter Impressuȝ.

8 ff. 4° [*In recto fol. B iv.*]: *Impressum Venetijs per Bernardinum Venetum De Vitalibus: Anno Dñi M.CCCCC.I.* ...

Arms on title.

— ...Textvs sphaerae Ioannis de Sacro Bvsto. Expositio sphæræ ... Frācisci Capuani ... Annotatiōes nōnullæ eiusdē Bartholomei Vespucii ... Theoricarum nouarum textus cū expositione eiusdem Francisci Capuani ... emendata.

4+94+65 ff. fol. [*In fine*]: *Impressio Veneta per Ioannem Rubeum & Bernardinū fratres Vercellenses ... Anno Domini. M.ccccc.viii.* ...

— TEXtus De Sphera Johannis de Sacrobosco Cum additione (quantum necessarium est) adiecta: Nouo commentario nuper edito... cū Cōpositione Anuli Astronomici Boni Latensis. Et Geometria Euclidis Megarensis.

33 ff. fol. [*In fine*]: ¶ *Impressum Parisij in officina Henrici stephani... Anno Christi siderum conditoris* 1511. ...

Title within woodcut border of winged figures.

— Habes lector Johannis de sacro busto sphere textum vna cum additionibus non aspernandis Petri Ciruelli ... ītersertis p̄terea q̄stiōib9 dñi Petri de Alliaco.

lxxxi. ff. fol. [*In verso fol. lxxviii.*]: ... *Impressum est hoc opusculum Anno ... 1515.... Parisius. Impensis Johannis Petit* ...

Printer's device on title.

Folios 76 and 77 are wanting.

[Sacrobosco, Johannes de]—*continued.* Sphera materialis geteuscht durch meyster Conradt Heynfogel von Nuremberg / eyn anfanck oder fundament der ghenen die da lust haben zu der kunst der Astronomy.

28 ff. 4° [*In fine*]: ¶ *Gedruckt zu Cöln durch Arnt von Aych jm jar vnsers herren. MCCCCC.xix.*

Woodcut on bordered title, which is repeated on the *verso*, also 27 others in text.

— Textvs de Sphaera Ioannis de Sacrobosco: Introdvctoria additione (quantū necessarium est) commentarióq9,... Cum cōpositione Annuli astronomici Boneti Latensis: Et Geometria Euclidis Megarensis.

36 ff., last blank, fol. *Parisiis Vænit apud Simonem Colinæum.* 1527.

Large woodcut on the title. Full-page figure of the *Sphæræ Materialis Formula* on *verso* of folio a iij., and many diagrams in the text or on the margin.

Chasles 3040.

— Spherae tractatus ¶ Ioannis de Sacro Bvsto ... ¶ Gerardi Cremonensis theoricae planetarvm veteres. ¶ Georgii Pvrbachii theoricae planetarvm novae. ... ¶ Alpetragii Arabi theorica planetarvm ... [Alpetragii Arabi planetarvm theorica ... nuperrime latinis litteris mandata a Calo calonymos Hebreo Neapolitano.]

8+268+28 ff. fol. [*Venetiis*] *MDXXXI.*

— SPhera materialis: eyn anfang vnd fundament der Astronomi / ... durch M. Cunrad Heynfogel von Nürnberg verteutscht / zuletst ... durch M. Polychorium ... widerumb verlesen / ...

31 ff. 4° *Zu Straszburg | bei Jacob Cammerlandern von Mentz. Anno.* 1533.

Woodcut on the title, repeated on the next leaf, and twelve others in the text.

— Ioannis de Sacrobvsto libellvs, de sphaera. *Eiusdem autoris libellus, cuius titulus est Computus, eruditissimam anni & mensium descriptionem continens. Cum præfatione Philippi Melanth. & nouis quibusdam typis, qui ortus indicant.*

56+56 ff. 8° [*In fine partis primæ*]: *Impressvm Vitebergae apvd Iosephvm Clvg, Anno. M. D. XXXVIII.*

One woodcut on title and many in the text, some of them with movable dials and pointers.

— ... Libellus de Sphaera. Accessit eivsdem avtoris compvtvs ec*clesiasticus, & alia quædam in studiosorum gratiam edita.* Cum præfacione Phi*lippi Melanthonis.*

72 ff., last blank, + 56 ff. 8° [*In fine primi operis*]: *Vitebergae excvdebat Petrvs Seitz. Anno* 1543.

Diagrams nearly the same as in the preceding edition, some of them being printed from the same blocks.

Sacrobosco, Johannes de—*continued.* Libellvs de sphaera. Accessit eiusdem avtoris compvtvs eccle*siasticus, Et alia quædam, in studiosorum gratiam edita.* Cvm praefatione Phi*lippi Melanthonis.*

2 tables, 136 ff., 2 blank, 8° [*In fine*]: *Vitebergae. Excvdebat Petrvs Seitz. Anno M.D. LXXIIII.*

Chasles 1992.

— Sphaera Ioannis de Sacrobosco emendata. Eliæ Vineti Santonis scholia in eandem Sphæram, ab ipso authore restituta. ... Adiunximus huic libro compendium in Sphæram per Pierium Valerianum ... et Petri Nonii ... demonstrationem eorum ... 12+81+4 ff. 8° *Coloniae*, 1594

Sadler, J.: Account of Various Improvements in Artillery, Fire-Arms, &c.

2 plates, 14 pp. 4° [*London*, 1798]

Safford, Truman Henry: * On the Right Ascension of the Pole Star, as determined by observation. 13 pp. 8° *Cambridge*, 1864

— Catalogue of the Mean Declinations of 2018 Stars between 0^h to 2^h and 12^h to 24^h Right Ascension, and 10° and 70° of North Declination, for ... 1875. 207 pp. 4° *Washington*, 1879

— * Investigation of corrections to the Greenwich Planetary Observations from 1762 to 1830, ...

3 ff.+51 pp. 4° *Washington*, 1883

— *See* Observatories. Cambridge, Mass.

Sage, Balthazar Georges: Expérience Qui fait connaître que la chaux éteinte par immersion peut être régénérée en pierre calcaire par le seul concours de l'eau. 8 pp. 8° *Paris*, 1810

— Opuscules de Physique.

xv. + 286 pp. 8° *Paris*, 1813

Saint-Cyran, — de: Calcul des rentes viageres sur une et sur plusieurs têtes: Contenant la Théorie complette de ces sortes de Rentes, ... [-Seconde partie.]

17 tables, viij.+44+58 pp. 4° *Paris*, 1779

Saint-Edme, Ernest: L'Électricité appliquée aux Arts Mécaniques, à la Marine, au Théatre.

xi.+234 pp. 8° *Paris*, 1871

Saint-Jacques de Silvabelle, Guillaume de: * Sur les variations célestes ou sur les inégalités des mouvemens des Planètes.

4 plates, 154 pp.+3 ff. 4° *Marseille*, 1756

With autograph of *M. Maty*.

Saint-Martin, J.: Nouvelles recherches sur l'époque de la mort d'Alexandre et sur la chronologie des Ptolémées, ... viij.+123 pp. 8° *Paris*, 1820

— Notice sur le Zodiaque de Denderah, ...

51 pp. 8° *Paris*, 1822

Saint-Robert, Paul de: Mémoires scientifiques, réunis et mis en ordre. Tome I. Balistique.

xi.+410 pp. 8° *Turin*, 1872

Salimbeni, Leonardo: Degli archi e delle volte libri sei. 6 plates, v.+302 pp. 4° *Verona*, 1787

Salmon, William: A Table for finding the latitude from the altitude of the Polar Star, observed at any hour in the northern hemisphere.

31 pp. 4° *London*, 1850

Salomon, Johann Michael Joseph: Metrologische Tafeln über die Masze, Gewichte und Münzen verschiedener Staaten, ...

1 plate, 323 pp. 8° *Wien*, 1823

— Tables des Logarithmes, contenant les Logarithmes des nombres depuis 1 jusqu'à 10800; les logarithmes des sinus et tangentes, ...

xxxviii.+466 pp.+1 f. 4° *Vienne*, 1827

Saltzman, Gregorius: Practica Teütsch / auf das M.CCCCC. vnd xlj. Jare / ...

8 ff. 4° [*In fine*]: ¶ *Getruckt zu Augspurg / durch Philipp Vlhart / in Sant Katherinen gassen.* s.a.

Woodcut figures of *Luna*, *Saturnus* and *Juppiter*, with *Finsternusz des Mons* and *Finsternusz der Sonne* on the title.

Chasles 3366.

Saluces de la Mante, François: The Register of Time, or a Perpetual Calendar.

26 pp. 4° *Southampton*, s.a.

Saluzzo, Cesare: *See* Valperga di Caluso, T.

Sandrart, J. J. de: Des neuen Wunder groszen Comet ... eigner Lauff ...

Plate, $9\frac{1}{2}$ in. × $10\frac{1}{2}$ in. [*Nürnberg*] s.a.

The legend gives 7 rough places of the Great Comet visible in December, 1680.

Sang, Edward: * On the Deflection of the Plummet due to Solar and Lunar Attraction.

1 plate, 5 pp. 4° *Edinburgh*, 1862

— Tables for the mutual conversion of Solar and Siderial Time.

viii. + 325 pp. 8° *Edinburgh*, 1868

— Specimen pages of a table of Logarithms of all numbers up to one million.

4 ff. 4° [*Edinburgh*, 1872]

Sang, Edward—*continued.* * Account of the New Table of Logarithms to 200000.
8 pp. 4° *Edinburgh*, 1872

— Specimen pages of a table of the logarithms of all numbers up to one million in preparation by Edward Sang, shortened to nine figures from original calculations to fifteen places of decimals. [On Last-Place Errors in Vlacq's Table of Logarithms.] 5 ff. + 16 pp. 8° [*Edinburgh*, 1874]

— Five place Logarithms.
32 pp. 32° *Edinburgh*, 1876

— * On the Comet's close approach to the Star B. A. C. 1881 (Camelopardus H 21).
1 plate, 3 pp. 8° *Edinburgh*, 1881
An observation of Comet *b*, 1881.

San Miguél, Vicente Tofiño de: *See* Observatories. Cadiz.

Sannemann, Heinrich: Disputatio physica De identitate materiæ coeli cum Sublunari.
6 ff. 4° *Jenæ*, 1628
Defended by Thomas Barth.

San Roberto, Paolo di: * Del moto de'projetti ne'mezzi resistenti. 105 pp. 4° *Torino*, 1855

Santbech, Daniel: Problematvm Astronomicorvm et geometricorvm sectiones septem, in qvibus evidentissimis demonstrationibus explicatur, ...
10 ff. + 294 pp. + colophon, fol. *Basileae*, 1561
Many woodcuts in the text, including diagrams of the zodiacal constellations.

— *See* Regiomontanus, J.

Santini, Giovanni: Tavole dei logaritmi de'numeri naturali da 1 a 101000 e dei seni, coseni, tangenti e cotangenti ... precedute da un trattato ... di trigonometria piana e sferica.
1 plate, 72 + 127 pp. 8° *Padova*, 1820

— * Osservazioni intorno all'ecclisse solare del giorno 7. Settembre dell'anno MDCCCXX.
24 pp. 4° *Modena*, 1824

— * Osservazioni intorno alla Cometa ... di Dicembre dell'anno MDCCCXXIII. [Appendice continente le osservazioni della Cometa scoperta nel luglio dell'anno MDCCCXXIV.]
16 pp. 4° *Padova*, 1825

— Teorica degli stromenti ottici destinati ad estendere i confini della visione naturale. Volume I. [II.] 2 vols. 8° *Padova*, 1828

— Elementi di Astronomia con le applicazioni alla geografia, nautica, gnomonica e cronologia. Edizione seconda ... Vol. I. [II.] 2 vols.
4° *Padova*, 1830

Santini, Giovanni—*cont.* Aggiunte e correzioni agli Elementi di Astronomia. 2 ff. 4° s.l., s.a.

— * Ritorno della Cometa periodica di Biela ... nell'anno MDCCCXXXII ...
12 pp. 4° *Padova*, 1833

— * Delle variazioni ... negli elementi ... della cometa periodica ... di Biela, ... fra il MDCCCXXVI ed il MDCCCXXXII. 8 pp. 4° *Padova*, 1834

— Calcolo delle variazioni ... negli elementi ... della Cometa detta di Biela ... fra il 1832 ed il 1839. 10 pp. 4° *Padova* [1835]

— * Opuscoli astronomici intorno alle Comete osservate nell'I. R. Osservatorio di Padova dall' anno MDCCCXXX fino all'anno MDCCCXXXV. [Memoria I. Osservazioni delle Comete apparse negli anni 1830, 1831 e 1832, ... II. Ricerche intorno alle perturbazioni ... della Cometa ... detta di Biela ... III. Osservazioni della Cometa periodica di Halley, ...]
84 pp. + 1 f. 4° *Padova*, 1836

— * Ricerche intorno alla massa di Giove determinata mediante le digressioni del suo quarto Satellite. 54 pp. 4° *Modena*, 1836

— * Descrizione del circolo meridiano dell'I. R. Osservatorio di Padova seguita da un Catalogo di stelle fisse per l'anno MDCCCXL.
1 plate, 84 pp. + 1 f. 4° *Padova*, 1840
Argelander's symbol for this Catalogue is $Si._1$. It ranges nearly from $-2°$ to $+12°$ declination.

— * Posizioni medie delle stelle fisse ridotte al principio dell'anno 1840 ...
80 pp. 4° *Padova*, 1840
This catalogue is designated $Si._2$ by Argelander. The stars are between the equator and 11° south declination.

— * Considerazioni intorno al calcolo degli oculari per i cannocchiali astronomici dirette a distruggere le aberrazioni secondarie di rifrangibilità, e di sfericità da essi dipendenti.
38 pp. 4° *Venezia*, 1842

— * Calcolo delle perturbazioni ... negli elementi ellittici della Cometa ... di Biela ... nel 1839 fino al ... 1846. 26 pp. 4° *Venezia*, 1842

— * Calcolo delle perturbazioni ... negli elementi ellittici della Cometa di ... Biela ... nel 1846 fino al ... 1852. 41 pp. 4° *Venezia*, 1851

— * Annotazioni intorno alla Cometa periodica di Biela ed alla III Cometa del 1854.
33 pp. 8° *Venezia*, 1855

Santini, Giovanni—*continued.* * Descrizione di un oculare composto da cinque lenti pe'cannocchiali della terza specie, appellati terrestri.
24 pp. 8° *Padova*, 1855

— * Notizie istoriche intorno alle Comete degli anni 1264-1556. 13 pp. 8° *Venezia*, 1857

— * Posizioni medie di 2706 stelle pel 1.° Gennajo 1860 ... fra 10° e 12° 30′ declinazione australe, dedotte dalle osservazioni fatte negli anni 1856-57-58 nell'I. R. Osservatorio di Padova.
82 pp. 4° *Padova*, 1858
Known as Catalogue Si.3.

— * Intorno alla Cometa periodica di Biela di cui attendesi il ritorno al perielio nel prossimo mese di Maggio 1859. 15 pp. 8° *Venezia*, 1859

— * Posizioni medie di 2246 stelle distribuite nella zona compresa fra li 12° 30′ e li 15° di declinazione australe, dedotte dalle osservazioni fatte dal Sig. Trettenero nell'I. R. Osservatorio di Padova ... 78 pp. 4° *Venezia*, 1862
The designation of this Catalogue is Si.4.

— * Posizioni medie di 1425 stelle pel principio del 1860. Distribuite nella zona ... fra 0° e 3° di declinazione australe, dedotte dalle osservazioni fatte dal defunto Prof. Trettenero ...
46 pp. 4° *Venezia*, 1870
Forms Catalogue Si.5.

— Rapporti sulle Osservazioni dell'ecclisse totale di Sole del 22 Dicembre 1870 eseguite in Sicilia dalla Commissione Italiana. ... Giovanni Santini presidente.
11 plates, 1 map, iv. pp.+2 ff.+214 pp. 4° *Palermo*, 1872.

— Giovanni Santini la sua vita e le sue opere. Discorso letto ... dal Prof. *Giuseppe Lorenzoni.*
69 pp. 8° *Padova*, 1877
Appended is a complete bibliography of Santini's writings.

Santucci, Antonio: Trattato nvovo delle Comete, che le siano prodotte in Cielo, ...
12 plates, 4 ff.+116 pp. 4° *Fiorenza*, 1611
Chasles 3306.

Saphar: *See* Alkindus.

Sarasa, Alfonso Antonio de: Solvtio problematis a R. P. Marino Mersenno Minimo propositi. Datis tribus quibuscumq; magnitudinibus, rationalibus vel irrationalibus, datisque duarum ex illis Logarithmis, tertiæ Logarithmum Geometricè inuenire. ... 35 pp. fol. *Antverpiæ*, 1649

Sarganeck, George: *See* Schmidt, J. J.

Sarrus, P. F.: Description d'un astrolabe, construit à Maroc en l'an 1208.
6 plates, 32 pp. 4° [*Strasbourg*] 1850

Sartorius, Georg Christian: Cubische Tabellen.
xi.+115 pp. 8° *Eisenach*, 1827

Saruco, Jahacob de Selomoh Hisquiau: Praxe da Arithmetica, em Que se exercitaô todo genero de contas, com methodo breve, & intelligivel. 63 pp. 8° *Amsterdam*, 1766

Saulcy, — de: * Recherches sur la chronologie des Empires de Ninive, de Babylone et d'Ecbatane...
161 pp. 8° *Paris*, 1849

Sault, R.: *See* Leybourn, W.

Saumarez, Richard: The principles of physiological and physical Science; comprehending the ends for which Animated Beings were created; and an examination of the unnatural and artificial systems of Philosophy which now prevail. xvi.+424 pp. 8° *London*, 1812

Saunders, Howard: * On the sea-birds obtained during the voyage of Lord Lindsay's Yacht 'Venus' from Plymouth to Mauritius in 1874.
5 pp. 8° *London*, 1880

Saunderson, Nicholas: The Elements of Algebra in ten books: ... To which is prefixed, An Account of the Author's Life ... 2 vols.
4° *Cambridge*, 1740
Author's portrait in the first volume.

Sauveur, —: Calendrier perpétuel contenant les Années Grégoriennes & Juliennes. ...
38 ff. fol. *Paris*, 1735
Chasles 3386.
This work is constructed on the plan of using 35 different almanacs, afterwards adopted by De Morgan in *The Book of Almanacs*. De Morgan did not know of this work, as he believed L. B. Francœur to have first imagined the plan on which it is made.
At the end is a MS. index of the almanacs from 1588 to 2010 as well as for every 50th year to A.D. 5000. A former owner has inserted three printed folios, containing a *Tabvla Paschalis antiqva reformata* and *Tabvla Paschalis nova reformata*, with a *Tabella temporaria festorvm mobilivm* from 1631 to 1664.

Savary, Félix: Mémoire sur l'application du calcul aux phénomènes électro-dynamiques.
1 plate, 26 pp. 4° *Paris*, 1823

— * Researches on the Elasticity of Bodies which crystallize regularly.
2 plates, 14+14 pp. 8° *London*, 1837

Savérien, Alexandre: Histoire des Philosophes Modernes. Avec leur Portrait Gravé ... 2me Edition ... [-Tome huitième.] 8 vols.
12° *Paris*, 1762-73

Savérien, Alexandre—*continued.* The same. 3me Edition en 1767. 8 vols. 12° *Paris*, 1767-73

The life of Descartes was translated from this series into Italian and published in 1774; but the writer's name is spelt *Severien*. *See* page 158.

Sawitsch, Alexis: Abriss der practischen Astronomie, vorzüglich in ihrer Anwendung auf geographische Ortsbestimmung. Aus dem Russischen übersetzt von W. C. Goetze ... Erster [Zweiter] Band. 2 vols. 8° *Hamburg*, 1850, '51

— Abriss der Praktischen Astronomie ... neu herausgegeben von C. F. W. Peters.
6 plates, xvi.+848 pp. 8° *Leipzig*, 1879

Sawyer, Edwin F.: * Some account of a new Catalogue of the magnitude of southern stars.
2 pp. 8° *Salem Press*, 1886

Saxton, Joseph: * Description of an automatic dividing machine, ... 3 pp. 8° *London*, 1846

Three woodcut figures.
From *Mechanics' Magazine*, Dec. 26, 1846.

Scaliger, Joseph Justus: Cyclometrica elementa dvo.
6 ff.+122 pp. fol. *Lvgdvni Batavorvm*, 1594

Diagrams in text in red ink.

— Mesolabivm.
34 pp.+1 f. fol. *Lvgdvni Batavorvm*, 1594

Diagrams in text in red ink.

Scarpellini, Feliciano: * Sopra alcuni nuovi riflettori lavorati in Roma per uso di grandi telescopii. 1 plate, 2 ff.+33 pp. 4° *Roma*, 1835

Account of the Black Marble Speculum, now in the Capitol Observatory.

Scepper, Cornelius: Assertionis fidei Adversvs Astrologos. Sive de significationibvs conivnctionvm svperiorvm planetarvm anni millesimi qvingentesimi Vicesimi quarti, ... Libri sex.
8 + cxxiii. + 3 ff. fol. [*In fine*]: ¶ *Symon Cocus, & Gerardvs Nicolaus, Ciues ... Antuerpiensis, ... excudebant Anno ... MD.XXIII. ...*

Woodcuts on title.
Chasles 2999.

Schaar, Matthieu: * Mémoire sur une formule d'analyse. 17 pp. 4° *Bruxelles*, 1848

Schaeberle, J. M.: * A Catalogue of 195 Stars for 1880. Reduced by G. C. Comstock ... from Observations by J. M. Schaeberle of the Detroit Observatory of Ann Arbor.
16 ff. 8° *Madison*, 1882

— * A Method for Observing Artificial Transits.
1 p. 8° *New Haven*, 1882

Schaeberle, J. M.—*cont.* * Lateral Astronomical Refraction. 7 pp. 8° *New Haven*, 1884

Schäffer, Jacob Christian: Vorschläge zu einer gemeinnützlichen Ausbesserung und Beförderung der Naturwissenschaft. 72 pp. 8° *Ulm*, s.a.

Schäffer, William: De facultatibus.
27+1 pp. "vita," 4° *Berolini*, 1837

Schanz, —: *See* Nicolaus de Cusa.

Schaubach, Johann Konrad: [Von den Sonnenflecken.] 8 pp. 4° *Meiningen* [1795]

In a "Programm" announcing *Zwey Abschiedsreden* at the ducal Lyceum.

— Ueber die Meynungen der Alten von unserm Sonnensystem. 12 pp. 4° *Meiningen*, 1796

— Geschichte der griechischen Astronomie bis auf Eratosthenes.
4 plates, xxviii.+507 pp. 8° *Göttingen*, 1802

Scheibel, Johann Ephraim: De adfrictv solidorvm in motv constitvtorvm.
1 plate, 37 pp.+1 f. 4° *Halae*, 1758

— *See* Bibliography.

Scheibert, C. G.: Versuch, die Prinzipien der Combinationslehre als einer selbstständigen Wissenschaft festzustellen, ...
2 ff.+28 pp. 4° *Stettin* [1834]

Scheibner, Wilhelm: Ueber die Berechnung einer Gattung von Functionen, welche bei der Entwickelung der Störungsfunction erscheinen.
30 pp.+1 f. 4° *Gothia*, 1853

— * Zur Reduction elliptischer Integrale in reeller Form. ii.+143 pp. 8° *Leipzig*, 1879

Scheidt, Christian Ludwig:
See Leibnitz, G. W., 1749.

[Scheiner, Christoph]: *Tres Epistolae* De macvlis solaribvs. *Scriptæ ad* Marcvm Velservm ...
1 plate, 8 ff. 4° *Avgvstae Vindelicorvm M.DC. XII. Non. Jan.*

There is a second plate in the text.
Published under the anonymous signature of *Apelles latens post tabulam.*

[—] De Macvlis Solarib. Et stellis circa Iouem errantibus, accvratior disqvisitio, ad Marcvm Velservm ... Perscripta.
52 pp. 4° *Avgvstae Vindelicorvm, M.DC.XII. Idib. Septembr.*

Signed *Apelles latens post tabulam, vel si mauis, Ulysses sub Aiacis clypeo.*

Scheiner, Christoph—*continued.* Disqvisitiones mathematicæ, de controversiis et novitatibvs astronomicis. ...

90 pp. + 2 ff. 4° *Ingolstadii*, 1614

Woodcut diagrams in text, in the last of which are little figures of the planet Saturn.

— Sol Elliptic: hoc est Nouum & perpetuum Solis contra hi soliti Phænomenon, quod nouiter inuentum, ...

2 ff. + 34 pp. + 1 f. 4° *Avgvstæ Vindelicorvm*, 1615.

Woodcut on title and several in text.

— Refractiones coelestes, *sive* Solis Elliptici phænomenon illvstratvm; ...

5 ff. + 132 pp. + 15 ff. 4° *Ingolstadii*, 1617

Woodcut on title and diagrams in text.

— Rosa Vrsina sive Sol ex admirando facvlarvm & Macularum suarum Phœnomeno varivs, necnon Circa centrum suum & axem fixum ab occasu in ortum annua, ... Libris quatuor Mobilis ostensus.

113 plates, 19 ff. + pp. 1 to 124, + 36 ff. + pp. 149 to 784, + 18 ff. fol. *Bracciani. Impressio cœpta Anno 1626. finita vero 1630. Id. Iunij.* ...

The plates, most of which are in the text, include one with *bears* on the letterpress title, an engraved title and the portrait of the Duke of Bracciano, to whom the work is dedicated. The fact that the Duke was of the Orsini family explains the devices on the title and, in part, the remarkable name of the book. There are also 60 repetitions of plates and diagrams. On p. 349 is figured a rude but substantial equatorial mounting.

— Oculus; hoc est, fundamentum opticum: in quo ex accurata oculi anatome, abstrusarum experientiarum sedula pervestigatione, ... radius visualis eruitur; sua visioni in oculo sedes decernitur; anguli visorii ingenium aperitur; ...

6 ff. + 254 pp. 4° *Londini*, 1652

Scheiner, Julius: Untersuchungen über den Lichtwechsel Algols nach den Mannheimer Beobachtungen von Professor Schönfeld in den Jahren 1869 bis 1875. [Inaugural Dissertation.]

31 pp. + "vita," 8° *Bonn*, 1882

Scheliha, — von: A Treatise on Coast-Defence: based on the experience gained by officers of the corps of engineers of the army of the Confederate States, ... from 1861 to 1865.

Frontispiece, 12 plates, xviii. + 326 pp. 8° *London*, 1868.

Lithographed half-title.

Schell, Wilhelm: Theorie der Bewegung und der Kraefte. Als Grundlage für seine Vortraege über analytische Mechanik.

230 pp. fol. *Carlsruhe*, 1867

Lithographed.

Schellbach, Karl Heinrich: Mechanische und mathematische Probleme.

1 plate, 32 pp. 4° *Berlin*, 1845

Schellen, Thomas Joseph Heinrich: Der Elektromagnetische Telegraph ... nebst einem Anhange über den Betrieb der elektrischen Uhren. ... Fünfte ... Auflage.

xxiii. + 866 pp. 8° *Braunschweig*, 1870

— Die Spectralanalyse in ihrer Anwendung auf die Stoffe der Erde und die Natur der Himmelskörper. Zweite ... Auflage.

5 portraits, 8 plates, xvi. + 619 pp. 8° *Braunschweig*, 1871.

Autograph letter by the author.

— Spectrum Analysis in its application to Terrestrial Substances, and the Physical Constitution of the Heavenly Bodies. ... Translated ... by Jane and Caroline Lassell. Edited, with notes, by William Huggins.

13 plates, xxvi. + 662 pp. 8° *London*, 1872

— *See* Secchi, A.

Schellenberg, Johann Gottfried: De curvarum algebraicarum ramis in infinitum excurrentibus. Dissertatio inauguralis ...

37 pp. + "vita," 8° *Berolini*, 1835

Schema Mundi: Schema Mvndi, Oder Allgemeiner Abrisz der Welt / Das ist: ... Entwurff Der Himmels- und Erd- Kugel / ...

1 plate, 11 ff. 4° *Jena*, 1688

Ten folios printed on one side only. Title in red and black. The plate represents a compass-card. 12 plates wanting.

Schenckel, Johann Thomas: Examen systematis solivm dimidiatorvm, ...

20 pp. 4° *Marburgi Cattorum*, 1725

Disputed under the presidency of *Christian Wolf.*

Schenk, Johann: Anleitung zur Berechnung der Sonnen- und Mondfinsternisse, so wie aller von der Parallaxe abhängigen Rechnungen. ...

2 plates, 139 pp. 8° *Olmüz*, 1859

Scherffer, Karl: Institutionum Mechanicarum pars secunda, sive de motu, et æquilibrio corporum fluidorum, ...

7 plates, 124 pp. + 2 ff. 4° *Vindobonæ*, 1773

Scherffer, Karl—*cont.* Institutionum Opticarum partes quatuor conscriptæ in usum tironum. 4 parts. 4° *Vindobonæ*, 1775

Each part is paged separately. The whole work contains 310 pp. with 32 plates.

— Institutiones astronomiæ theoreticæ, conscriptæ in usum tironum.

19 plates, 394 pp.+3 ff. 4° *Vindobonæ*, 1777

Schering, Ernst Christian Julius: * Erweiterung des Gaussschen Fundamentalsatzes für Dreiecke in stetig gekrümmten Flächen.

3 pp. 8° *Göttingen*, 1868

— * Die Fundamental-Classen der zusammensetzbaren arithmetischen Formen.

16 pp. 4° *Göttingen*, 1869

— * Die Schwerkraft im Gaussischen Raume.

11 pp. 12° *Göttingen*, 1870

— * Linien, Flächen und höhere Gebilde in mehrfach ausgedehnten Gaussischen und Riemannschen Räumen. 9 pp. 12° *Göttingen*, 1873

— * Die Schwerkraft in mehrfach ausgedehnten Gaussischen und Riemannschen Räumen.

11 pp. 12° *Göttingen*, 1873

— * Hamilton-Jacobische Theorie für Kräfte, deren Maass von der Bewegung der Körper abhängt.

10 pp. 12° *Göttingen*, 1873

— * The same. 54 pp. 4° *Göttingen*, 1873

— * Verallgemeinerung der Poisson-Jacobischen Störungsformeln. 37 pp. 4° *Göttingen*, 1874

— * Verallgemeinerung des Gaussischen Criterium für den quadratischen Rest-Character einer Zahl in Bezug auf eine andere. 2 pp. 8° *Berlin*, 1876

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— *Bestimmung des quadratischen Rest-Characters. 47 pp. 4° *Göttingen*, 1879

— * Bemerkungen über Gauss' Brief vom 30 April 1807 an Sophie Germain.

4 pp. 8° *Göttingen*, 1879

— * Zur Lösung der Keppler'schen Gleichung.

8 pp. 8° *Göttingen*, 1884

— *See* Gauss, C. F.
Riemann, G. F. B.

Scherk, Heinrich Ferdinand: De evolvenda functione $\frac{y\mathrm{d}.\ y\mathrm{d}.\ y\mathrm{d}\ \ldots\ y\mathrm{d}X}{\mathrm{d}x^n}$ disquisitiones nonnullae analyticae. Dissertatio inauguralis ...

1 table, 2 ff.+38 pp.+1 f.,"vita"4° *Berolini*, 1823

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8 ff. 4° *Jenæ*, 1663

Scheubel, Johann: Algebrae compendiosa et facilisqve descriptio, qua depromuntur magna Arithmetices miracula.

52 ff. 4° *Parisiis*, 1552. [*Sed in fine*]: *Excudebat Lutetiæ Parisiorum, Benedictus Preuotius Typographus*, ... 1551.

See Hutton's *Tracts on mathematical ... subjects*, Vol. II. p. 241.

Scheuchzer, Johann Jacob: Σ. Θ. Coelum triste Ad Julias Calendas Anni 1731.

1 f.+41 pp. 4° s.l., s.a.

Scheutz, George, and Scheutz, Edward: Specimens of Tables, calculated, stereomoulded, and printed by Machinery.

1 plate, xviii. + 50 pp. 8° *London*, 1857

[—] Specimens of Tables, calculated, stereomoulded, and printed by Machinery.

1 woodcut, xviii.+50 pp. 8° *London*, 1857

The apparatus is designated on the cover *The Swedish Calculating Machine.*

[—] Spécimen de tables calculées stéréotypées et imprimées au moyen d'une machine.

1 plate, 68 pp. 8° *Paris*, 1858

Schiaparelli, Giovanni Victor: * Sulla direzione iniziale della coda delle Comete. [Part I.]

18 pp. 8° *Milano*, 1860

A reprint from the *Effemeridi astronomiche di Milano* 1861, where it is continued in the volume for 1872 [5 plates, 22 pp.] *See* Observatories. Milan.

— * Intorno al corso ed all'origine probabile delle stelle meteoriche lettere ... al P. A. Secchi.

33 pp. 4° *Roma*, 1866

— * Note e riflessioni intorno alla teoria astronomica delle stelle cadenti.

4 plates, 132 pp. 4° *Firenze*, 1867

— * Alcuni risultati preliminari tratti dalle osservazioni di Stelle Cadenti pubblicate nelle Effemeridi degli anni 1868, 1869, 1870.

24 pp. 8° *Milano*, 1870

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— Entwurf einer Astronomischen Theorie der Sternschnuppen. ... Aus dem Italienischen übersetzt und herausgegeben von Georg von Boguslawski.
4 plates, viii.+268 pp. 8° *Stettin*, 1871

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— * Osservazioni astronomiche e fisiche sulla grande Cometa del 1862 (1862 III). ...
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— * Le sfere omocentriche di Eudosso, di Callippo e di Aristotele.
2 plates, 63 pp. 4° *Milano, Napoli, Pisa*, 1875

— * Osservazioni astronomiche e fisiche sull'asse di rotazione e sulla topografia del pianeta Marte fatte ... in Milano ... durante l'opposizione del 1877. 5 plates, 136 pp. 4° *Roma*, 1878

— * The same. 19 pp. 8° *Leipzig*, 1879
The review by *O. Struve* in the *Vierteljahrsschrift der Astronomischen Gesellschaft.*

— * The same. Memoria seconda ... (osservazioni dell'opposizione 1879-1880).
6 plates, 109 pp.+1 f. 4° *Roma*, 1881

— * The same. Memoria terza ... (opposizione 1881-1882). 3 plates, 95 pp. 4° *Roma*, 1886

— * Sull'umidità atmosferica nel clima di Milano. Risultati di 35 anni di osservazioni fatte nell' Osservatorio di Brera (1845-1879.)
3 plates, 35 pp. 4° *Milano*, 1880

— * Misure di alcune principali stelle doppie di rapido movimento orbitale eseguite negli anni 1875-1882 col Refrattore di Merz ...
43 pp. 8° *Milano*, 1882

— * Sulla grande pioggia di stelle cadenti del 27 novembre 1885. 11 pp. 8° *Milano*, 1886

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Observatories. Milan.

Schiaparelli, G. V., e Celoria, G.: * Resoconto delle operazioni fatte a Milano nel 1870 ... per determinare la differenza di longitudine dell'osservatorio di Brera coll'osservatorio di Neuchâtel e colla stazione trigonometrica del Sempione.
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1 plate, 75 pp. 8° *Milano*, 1872

Schiaparelli, G. V., e Frisiani, P.: * Sui Temporali osservati nell'Italia superiore durante l'anno 1877. 18 plates, 90 pp. 4° *Milano*, 1880

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Schickard, Wilhelm: Beschreibung Desz Wunder Zaichens / Welches Montags den 25. Januarij / ... dieses ... 1630. Jahrs / ... gegen Nord gesehen worden. Sampt ... Bericht / von dem Stern / welcher ... vmb den hellen Mittag erschinen / ... [Zugaab.] 32 pp. 4° s.l., *Anno ut supra.*
Accounts of an Aurora, and of the visibility of Venus at mid-day. The *Zugaab* is about a large unknown bird.

— W. Schickardi pars responsi Ad Epistolas P. Gassendi ... De Mercurio sub sole viso, & alijs Novitatibus Uranicis. 40 pp. 4° *Tubingæ*, 1632
Autograph of *Rob. Burton* on the title.

— Succincta methodvs Mappas Geographicas explosis consuetis hactenus erroribus construendi,...
2 ff.+31 pp. 4° *Tubingæ*, 1674

Schickard, Wilhelm, Jun.: Astroscopium. Pro facillima Stellarum cognitione excogitatum & Commentariolo illustratum; ...
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Schieck, H. August: Ueber die Himmelsgloben des Anaximander und Archimedes.—Ein Beitrag zur Aufhellung des Alterthums. Erste [Zweite] Abtheilung. 2 parts.
iv.+40 pp., 32 pp. 4° *Hanau*, 1843, '46

Schiereck, Joseph Friedrich: Polygonometrie oder ausführliche Anweisung zur Berechnung aller aus dem Umfange gemessenen Figuren ...
2 plates, xv.+160 pp. 8° *Gieszen*, 1820

— Tafeln aller Quadrate von 1 bis 10000, nebst Anweisung, daraus die Quadrate und die Wurzeln aller Zahlen bis 100000000 zu bestimmen, und einer Anwendung derselben zur leichtern und richtigern Berechnung des Holzes.
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3 plates, xii. + 154 pp. + 14 ff. 4° *Köln am Rhein*, 1827.

Schilke, Emil: Die Newton'sche Erzeugungsweise der Kegelschnitte. Inaugural-Dissertation.

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Schimpffer, Bartholomæus: Kurtze Beschreibung Des dunckelen Cometen So Anno 1652. den 8. Decembr. erschienen / ... 14 ff. 4° *Hall*, 1652

Astrological *Scheme* on title.

Schinbain, Johann Görgen: Sternen oder Cometen Buch / In welchem die fürneīmsten Cometen / ... Beschriben vnd in Teutsche Rhytmos gestellet / ... 76 ff. 4° *Ingolstatt*, 1578

Rude woodcut on the title and many others in the text.

Schinz, Emil: * Über das Polar Planimeter von Prof. Amsler in Schaffhausen.

24 pp. 8° *Bern*, 1857

Schjellerup, Hans Carl Frederik Christian: * Tycho Brahes Original-Observationer, benyttede til Banebestemmelse af Cometen 1580.

39 pp. 4° *Kjöbenhavn*, 1854

— Stjernefortegnelse indeholdende 10000 Positioner af teleskopiske Fixstjerner imellem −15 og +15 Graders Deklination. Udledet af egne Observationer, anstillede med Kjøbenhavns Meridiankreds i Aarene 1861, 1862 og 1863 samt reducerede til Begyndelsen af 1865.

1 plate, xxxii.+244 pp. *Kjøbenhavn*, 1864

— * Genäherte Örter der Fixsterne von welchen in den Astronomischen Nachrichten Band 1 bis 66 selbständige Beobachtungen angeführt sind für die Epoche 1855 ... geordnet.

2 ff.+40 pp. 4° *Leipzig*, 1867

— * Zweiter Catalog der rothen, isolirten Sterne, vervollständigt ... bis zum Schluss des Jahres 1874. 37 pp. 8° *Leipzig*, 1874

— * Bidrag til Bedømmelse af de moderne Maaneelementers Paalidelighed.

32 pp. 8° *Kjøbenhavn*, 1874

Schjellerup, Hans Carl Frederik Christian—*cont.*

* Recherches sur l'astronomie des anciens.

I. Sur le Chronomètre Céleste d'Hipparque.

II. On the Total Solar Eclipses Observed in China in the Years B.C. 708, B.C. 600, and B.C. 548.

III. Sur les Conjonctions d'Étoiles avec la Lune rapportées par Ptolémée.

15 pp., 7 pp., 14 pp. 4° *Dublin*, 1881

— * Supplément aux Tables écliptiques de P. A. Hansen. 1 p. 4° *Dublin*, 1881

— * On some hitherto unknown Observations of a supposed Satellite of Venus.

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— * Christian Mayer's observations of Telescopic Stars arranged according to constellations.

9 pp. 4° *Dublin*, 1883

— Analytisk Plangeometri for Sökadetterne.

94 pp. 4° [*Kjöbenhavn*] 1883

Lithographed.

[—] Funktionslære og Ligningernes Theori.

24 pp. 4° [*Kjöbenhavn*] 1884

Lithographed.

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32 pp. 4° [*Kjöbenhavn*] 1884

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— *See* Star Charts. Abd-al-Rahman Al-Sufi. Tidsskrift, Mathematisk.

Schlagintweit, Hermann Rudolph Alfred: * Ueber Messinstrumente mit constanten Winkeln (Linsen- und Prismenporrhometer).

1 plate, 41 pp. 8° *Stuttgart*, 1849

— Untersuchungen über die Vertheilung der mittleren Jahres-Temperatur in den Alpen.

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Schlegel, Gustav: * ... Sing chin khao youen Uranographie Chinoise ou preuves directes que l'astronomie primitive est originaire de la Chine, ... Première partie.

xiv.+(vi.)+929 pp. 8° *La Haye, Leyde*, 1875

— Uranographie Chinoise. Atlas céleste Chinois et Grec d'après le T'ien-Youen-Lí-Li.

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Schleiden, Matthias J.: * Swedenborg und der Aberglaube. Ein hors d'oeuvre.

30 pp. 8° *Leipzig*, 1849

In *Abhandlungen der Fries'schen Schule ... Zweites Heft.*

Schleiermacher, Andreas August Ernst: Bibliographisches System der gesammten Wissenschaftskunde mit einer Anleitung zum Ordnen von Bibliotheken, Kupferstichen, Musicalien, wissenschaftlichen und Geschäftspapieren. Erster [Zweiter] Theil. 2 vols.
8° *Braunschweig*, 1847

Schlömilch, Oscar: Theorema Taylorianum.
13 pp. 4° *Jenae*, 1844

— Analytische Studien. Erste Abtheilung enthaltend Theorie und Tafel der Gammafunktion nebst deren wichtigsten Anwendungen.
iv.+209 pp. 8° *Leipzig*, 1848

— The same. Zweite Abtheilung enthaltend die Fourier'schen Reihen und Integrale nebst deren wichtigsten Anwendungen.
197 pp. 8° *Leipzig*, 1848

— Die Reihenentwickelungen der Differenzial- und Integralrechnung.
1 plate, 39 pp. 4° *Dresden*, 1851

Schlosser, Th.: Th. Schlosser's Sonnenbahnkarte.
Card, 21.5 in. × 22.5 in., *Wien*, 1873
This is a diagram with a movable zone in the style of *Apianus* and *Schoner*.

— Erklärung der Sonnenbahn-Karte zur Darstellung der scheinbaren Bahn der Sonne ...
8 pp. 8° *Wien*, 1873

Schlotke, Julius: Krystallographie. Stereoscopische Darstellung einer Reihe der wichtigsten Krystalle, ...
46 plates, 10 pp. 12° *Hamburg*, 1873
The plates contain 51 stereoscopic diagrams.

Schmarda, Karl Johann: Ueber die geometrischen Vorbedingungen der treffsichern Fernwirkung. 1 plate, viii.+46 pp. 8° *Prag*, 1862

Schmerbauch, G. H.: *See* Schubert, J. E.

Schmezer, C.: *See* Preyssinger, L.

Schmid, Karl Ludwig: Variae cogitationes de Rebvs Physicis atqve Mathematicis, partim novae, partim ivcvndae, partim vtiles, ...
1 woodcut, 40 pp. 4° *Ienae*, 1738

Schmidt, Carl Heinrich: *... Über den Bewegungsmechanismus des Parr-Curtis Selfactors ...
2 plates, 11 pp. 4° *Stuttgart*, 1865
The plates are fine examples of mechanical drawing.

Schmidt, Gustav: *Ein Beitrag zur Mechanik der Gase. 1 table, 64 pp. 8° *Wien*, 1860

Schmidt, G. G.: Logarithmische, Trigonometrische und andere Tafeln ...
xxii.+217 pp. 12° *Giessen*, 1821

Schmidt, Johann Andreas: Archytam Tarentinum dissertatione historico-mathematica ... subjiciet Joannes Georgius Mertz ...
1 plate, 20 ff. 4° *Jenæ*, 1683
This dissertation treats on flying machines.
J. A. Schmidt was the president for this and the two following dissertations.

— Hipparchum Theonas, doctamqve Hypatiam in Mathesi celebres. Dissertatione Historico-Mathematica ... exhibet ... Auctor Respondens Jo. Christoph. Kiesewetter. 24 pp. 4° *Jenæ*, 1689
Incomplete.

— Geometriam brvtorvm ... delineabit Sebastian Levin Bugæus. 1 plate, 28 pp. 4° *Jenæ*, 1690

Schmidt, J. A.: Astronomische Wahrnehmungen bey dem Durchgang der Venus durch die Sonne welcher...den 6ten Junii...sichtbar seyn wird...
1 plate, 19 pp. 4° *Erfurt*, 1761

Schmidt, Johann Friedrich Julius: Resultate aus zehnjährigen Beobachtungen über Sternschnuppen. ... xii.+193 pp. 8° *Berlin*, 1852

— Beobachtung der totalen Sonnenfinsterniss vom 28sten Juli 1851 zu Rastenburg in Ostpreussen.
4 plates, 25 pp. 4° *Bonn*, 1852

— Die Eruption des Vesuv im Mai 1855 ...
xii.+212 pp. 8° *Wien und Olmüz*, 1856

— Die Eruption des Vesuv in ihren Phänomenen im Mai 1855 nebst Ansichten und Profilen der Vulkane des phlegräischen Gebietes Roccamonfina's und des Albaner Gebirges.
9 plates, 23 in. × 17 in., 23 pp. 8° *Wien und Olmüz*, 1856.

— Der Mond. 2 plates, x.+163 pp. 8° *Leipzig*, 1856

— Das Zodiacallicht.
110 pp. 8° *Braunschweig*, 1856

— Resultate aus elfjährigen Beobachtungen der Sonnenflecken.
10 plates, 2 ff.+38 pp. 4° *Wien und Olmüz*, 1857.

— Untersuchungen über die Leistungen der Bourdon'schen Metallbarometer mit Hinweisung auf den Nutzen dieser Instrumente für die Marine.
3 plates, 2 ff.+36 pp. 4° *Wien und Olmüz*, 1858.

Schmidt, Johann Friedrich Julius—*continued.*
Astronomische Beobachtungen über Cometen.
18 plates, 1 woodcut, 3 ff.+145 pp. 4° *Athen*, 1863.
Forms Tome I. of *Publications de l'Observatoire d'Athènes. 1re Série.*

— Über Rillen auf dem Monde.
3 plates, 24 pp. 4° *Leipzig*, 1866

— * Astronomische Beobachtungen über Meteorbahnen und deren Ausgangspunkte.
54 pp. 4° *Athen*, 1869
With an autograph letter by the author. Forms Part I. of Tome II. of *Publications de l'Observatoire d'Athènes.*

— Vulkanstudien. Santorin 1866 bis 1872. Vesuv, Bajae, Stromboli, Aetna 1870.
7 plates, vi.+235 pp. 8° *Leipzig*, 1874
Woodcuts in text.

— Charte der Gebirge des Mondes nach eigenen Beobachtungen in den Jahren 1840-1874.
25 sheets, 20¾ in. × 20¾ in. *Berlin*, 1878

— Kurze Erläuterung zu J. Schmidt's Mondcharte in 25 Sectionen. 19 pp. 4° *Berlin*, 1878

— Charte der Gebirge des Mondes ... Erläuterungsband. xii.+303 pp. 4° *Berlin*, 1878

— * Ueber die Mondlandschaft "Messier."
19 pp. 8° *Halle*, a/S., 1882

— *See* Lohrmann, W. G.

Schmidt, Johann Jacob: Biblischer Mathematicus Oder Erläuterung der Heil. Schrift aus den Mathematischen Wissenschaften ... Als ein Anhang ist beygefüget Herrn George Sarganeck's Versuch einer Anwendung der Mathematic in dem Articul von der Grösse der Sünden-Schulden.
27 plates, 11 ff.+672 pp.+16 ff. 8° *Züllichau*, 1736.

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4° *Arau*, 1806, '07, '08

Schmidt, Oscar: * Die Infusionsthiere und die sich bewegenden Pflanzenkeime.
23 pp. 8° *Leipzig*, 1849
In *Abhandlungen der Fries'schen Schule ... Zweites Heft.*

Schmidten, Henrik Gerner von: Recherches sur le calcul intégral aux équations linéaires.
2 ff.+31 pp. 4° *Copenhague*, 1819

Schmiedt, Johann Gabriel: Disputatio mathematica de Lvmine Lvnari.
1 plate, 32 ff. 4° *HelmestadI*, 1682

Schmit, N. C.: Études sur une classe de fonctions employées en mécanique céleste. Recherches sur les fonctions de Legendre.
iv.+80 pp. 8° *Bruxelles*, 1858

Schmitz, J. W.: Bewegung der Erde und der andern Planeten von ihrem Ursprunge bis zu ihrem Ende, ...
1 table, vi.+40 pp. 8° *Berlin*, 1830

Schneider, Karl Ernst Christoph: De numero Platonis disputatio.
34 pp. 4° *Vratislaviae*, 1821

Schneuber, Johann Matthias: Vmständliche Beschreibung Desz grossen Cometen / Welcher im Anfang desz Christmonats 1664. erschinen...
1 chart, 52 pp. 4° *Straszburg*, 1665
Plate on title.

Schoder, Hugo: Die Elemente des Cometen VI 1857. 12 pp. 4° *Tübingen*, 1858

Schömann, G. F.: Prolusio de Romanorum anno saeculari ad Vergil. Ecl. IV.
16 pp. 4° *Gryphiswaldiae*, 1856

Schön, Johann Joseph: Dissertationis mathematicae de functionibus symmetricis earumque in analysi usu pars prima.
2 ff.+61 pp.+1 f. 4° *Halae*, 1825

Schönberg, Kurt Friedrich von: An Herrn Professor Haubold ... [Von den krummen Linien. Die Parabel. ... Die Ellipse. ... Die Hyperbel. ...] 1 plate, 75 pp. 4° *Leipzig* [1770]

Schönberg, Petrus; Odelberg, Axel; Ahlberg, Nicolaus Levinius: Prolegomena in modum exprimendi æquationum radices. 2 parts.
3 ff.+30 pp. 4° *Upsaliæ*, 1816
Axel Odelberg assisted in propounding the first, and Nicolas Levin Ahlberg the second part.

Schönfeld, Eduard: Nova elementis Thetidis, deducta ex observationibus annorum 1852 et 1853. [Inaugural Dissertation.]
2 ff.+32 pp.+"vita," 4° *Bonnae*, 1854

— * Beobachtungen von veränderlichen Sternen. Angestellt auf der ... Sternwarte zu Bonn ...
90 pp. 8° *Wien*, 1862

— * Catalog von veränderlichen Sternen mit Einschluss der neuen Sterne. Mit Noten.
53 pp. 8° *Mannheim*, 1866

Schönfeld, Eduard—*cont.* * Zweiter Catalog von veränderlichen Sternen. Mit Noten.
72 pp. 8° *Mannheim*, 1875

— * Ueber die Berechnung der Differentialformeln zur Bestimmung der wahrscheinlichsten Bahnelemente für Planeten und Cometen. (Mit Hülfstafeln.) 54 cols. 4° *Kiel*, 1885

— *See* Observatories. Bonn.
Observatories. Mannheim.
Scheiner, J.
Star Charts. Bonn.

Schönfeldt, Victor: Prognosticon astrologicvm.... Auff das Jar 1578. Durch ... Victorinum Schönfeldt von Budissin / ... Mathematicum der Fürstlichen ... Hohen Schule zu Marpurgk ... / gestellet. 16 ff. 4° *Wittemberg*, 1578
On the titlepage is a large woodcut of *Finsternus am Monden.*

Schoenherr, J. D.: *See* Planer, J. A., 1704.

[Scholtz, Ernst Julius]: [De figura guttae cadentis in aere resistente disquisitiones nonnullae.]
1 plate, 1 table, 2 ff.+47 pp.+2 ff., "vita," s.l., s.a.

Schoner, Andreas [Schöner]: Gnomonice ... Hoc est: de descriptionibvs horologiorvm sciotericorvm omnis generis, ... Libri tres. His addita svnt ... Gnomonices Mechanices, ... De inuentione lineæ Meridianæ, ... De compositione Astrolabij ...
6+cviii. ff. fol. *Noribergæ, M.D.LXII.*
Woodcut heading to title, colophon and many diagrams, all of which have been illuminated, probably by a former owner.

Schoner, Johann [Schöner]: Globi Stelliferi, sive sphaerae stellarum fixarū usus, & explicationes,...
28 ff. 4° [*In fine*]: *Excudebatur Norimbergæ anno* 1533.
Figure of a globe on *verso* of title and one diagram in text.
At the end stands in autograph:—*Ego philippus Melanthon hoc tempore Rector Academiæ Witebergensis testor hoc autographo N. n. inscriptum esse in matriculam Academiæ. die decima Maij Anno 1538 philippus manu propria.*
From Guizot's Library.

— Ioannis Schoneri ... Ae*qvatorivm astronomicvm ex quo errantium stellarum motus, luminarium configurationes & defectus colliguntur, Item.* Planisphærium, ... *Item.* Organvm Vranicum, ... *Item. Instrvmentvm impedimentorvm Lunæ, ... Adiectæ sunt his omnibus compositiones instrumentorum.*
4 ff.+ff. i. to lvii., fol. *Anno M.D.LXI.* [*Sed in Colophon*]: *Noribergæ, ... M.D.LI.*
Many illuminated initials, diagrams and volvelles.

Schoner, Johann [Schöner]—*continued.* Globi stelliferi sive spheræ stellarvm fixarvm vsvs, et explicationes, ...
ff. lxxxv. to clxvii., fol. s.l., *Anno Christi M.D.LXI.*
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1 f., charts 1 to 20, 12½ in. × 13 in. fol. [*Washington*, 1882].

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Title, 14 maps, 18 in. × 27 in. [*Buenos Aires*] 1877.

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— Uranometria Argentina—Brightness and positions of every fixed star, down to the seventh magnitude, within one hundred degrees of the south pole, by Benjamin Apthorp Gould.

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Dunn, Samuel: Scientia Terrarum et Coelorum: Or, The Heavens and Earth Astronomically and Geographically Delineated And Display'd ...

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The sheets are made to join together. The earth is shown in two hemispheres of 23⅝ in. diameter, but those of the heavens are only 7⅛ in. across.

Flamsteed, John: Atlas Céleste de Flamstéed, approuvé par l'Académie Royale des Sciences, ... Par J. Fortin, ... Second édition.

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Geyn, Jacob de: Arataea, sive Signa Coelestia: ...

1 f., 44 plates, fol. *Amstelodami*, 1652

Compare p. 203.

Goldbach, Christian Friedrich: Neuester Himmels-Atlas ... nach Flamsteed ... mit einer Einleitung begleitet vom Hrn. ... von Zach.

56 maps, 5 ff. obl. fol. *Weimar*, 1799

See page 206.

Gould, B. A.: *See* Star Charts. Cordoba.

Habrecht, Isaac: [Planiglobium Coeleste Horizontis ratione universalius redditum ... à Ioanne Christophoro Sturmio.]

14 plates, fol. [*Nürnberg*, 1666]

Plates only, wants title and text.

Harding, Karl Ludwig: Atlas novvs coelestis XXVII tabvlis continens stellas inter polvm borealem et trigesimvm gradvm declinationis avstralis adhvc observatas.

Engraved title, 27 plates, fol. *Gottingae*, 1822

A later edition, without title, has an index to the charts and a list of constellations.

Harris, Joseph: Stellarum fixarum hemisphærium boreale [australe] ... Projected on the Plane of the Æquator ... [for] the Year 1690.

2 plates, 27 in. × 27 in., *London*, s.a.

Heis, Eduard: Sammlung von fünf Sterncharten für die Himmelsgegenden: Nord, Ost, Süd, West und für das Zenith, zum Einzeichnen der Sternschnuppen der November-Periode.

5 plates, obl. fol. *Köln*, 1868

Heis, Eduard—*cont.* Atlas coelestis novvs....Neuer Himmels-Atlas....

12 plates, 8½ in. × 13 in., obl. fol. *Coloniae ad Rhenvm*, 1872.

Engraving on title.

— The same. Catalogvs Stellarvm. ... Stern-Verzeichniss.

xiii. pp. + 1 f. + 181 pp. 8° *Coloniae ad Rhenvm*, 1872.

— Atlas Coelestis Eclipticus ... Octo continens tabulas ad delineandum Lumen Zodiacale.

8 plates, 2 ff. obl. fol. *Coloniae ad Rhenum*, 1878

Hevel, Johann [Hevelius]: Firmamentum Sobiescianum, sive Uranographia, ...

57 plates, 11½ in. × 14½ in., 21 pp. fol. *Gedani*, 1690.

For fuller title *see* page 235.

Hoffmann, Karl Friedrich Vollrath: Vollständiger Himmels-Atlas für Freunde und Liebhaber der Sternkunde, ...

32 plates, 2 ff. fol. *Stuttgart*, 1835

Houzeau, J. C.: Atlas de toutes les Étoiles visibles à l'œil nu, formé d'après l'observation directe, dans les deux hémisphères.

5 plates, 6 pp. fol. *Mons*, 1878

Jamieson, Alexander: A Celestial Atlas comprising A Systematic Display of the Heavens in a Series of thirty Maps ...

30 plates, 64 pp. obl. 4° *London*, 1822

Engraved title and dedication.

Johnston, Alexander Keith: A school atlas of Astronomy ... Edited by J. R. Hind.

18 plates, 2 ff. + 16 pp. 8° *Edinburgh and London*, 1856.

Littrow, Joseph Johann von: Atlas des gestirnten Himmels ... Dritte ... Auflage, herausgegeben von Karl von Littrow.

19 plates, viii. + 64 pp. 8° *Berlin* [1866]

Meigen, Johann Wilhelm: Himmels-Atlas.

16 maps, fol. *Düsseldorf*, 1823

Müller, Johann: Die aequatorial Zone des gestirnten Himmels.

1 chart, 93 in. × 23 in., 7 pp. 8° *Freiburg*, 1856

White stars on dark blue ground.

Palisa, Johann: Sternkarte [-Nr. 4] nach Beobachtungen von 1878 bis ... [1885].

4 plates, 12 in. × 12 in., s.l., s.a.

The engraved part of Nr. 4 measures 12¾ × 12½ in.

Paris: Annales de l'Observatoire ... Atlas écliptique. Carte No. 1 ...

42 sheets, 12¼ in. × 12¼ in., *Paris*, s.a.

By J. Chacornac, Paul and Prosper Henry, &c. Incomplete.

Peters, C. H. F.:

See Star Charts. Clinton, New York.

Piccolomini, Alessandro: De la sfera del mondo Libri qvattro ... Dele stelle fisse. Libro vno ... con le sve Tauole ...

8 + 176 ff. 4° *Venetia*, 1540

In the various editions of the latter part of this work are 48 figures of the constellations, in which the greater part of the stars are designated by letters.

— De la sfera del mondo ... Libri quattro, ... De le stelle fisse ... Libro uno. Con le loro fauole [*sic*] ... 8 + 189 + 7 ff. 4° *Venetia*, 1561

— De le stelle fisse libro vno; ...

30 ff. + 48 pp. + 72 ff. 4° *Venetia*, s.a.

— Alexandri Picolhominei de sphaera libri qvatuor, ... Eivsdem compendivm de ... stellis fixis; ...

10 ff. + 151 pp. + pp. 1-59, + 24 ff., cuts, + pp. 65-121, + 3 ff. 4° *Basileæ*, 1568.

Pogson, Norman Robert: Gemini. Var. 2. Cassiopeia. Var. 2. Ursa major. Var. 1. Ursa major. Var. 2. Libra. Var. 1. Cygnus. Var. 3.

6 plates, 4° s.l., s.a.

These are maps of Variable Stars and their surroundings.

Proctor, Richard Antony: Half-hours with the Stars: a plain and easy guide to the knowledge of the constellations ... Second edition.

12 maps, 22 pp. 4° *London*, 1870

— A chart of the Northern Hemisphere, Shewing all the Stars in Argelander's ... Charts,—324,198 in all. ...

1 photo., 1 map, 1 f. fol. *Manchester*, 1871

— A Star Atlas for students and observers showing 6000 Stars and 1500 Double Stars, Nebulæ, &c. ... Fourth edition.

14 maps, 4 pp. fol. *London*, 1877

Schlegel, Gustave: Uranographie Chinoise. Atlas céleste Chinois et Grec d'après le T'ien-Youen-Lí-Li.

7 plates, 2 ff. obl. 4° *La Haye, Leyde*, 1875

Schwinck, G.: Mappa coelestis sive tabulae quinque inerrantium septem ordinem non excedentium et usque ad XXX gradum decl. austr. pertinentium quas ... construxit G. Schwinck.

5 maps, 17 in. × 19 in. 3 ff. atlas fol. *Lipsiae*, 1843

Seller, John: Atlas Cælestis Containing the Systems and Theoryes of the Planets the Constellations of starrs. *and other Phenomina's of the Heavens* ... 63 plates, 72 pp. 8° s.l., s.a.

Engraved title. Probably printed in London *circa* 1679.

Semler, Christian Gottlieb: Astrognosia Nova oder Ausführliche Beschreibung des ganzen Fixstern und Planeten-Himmels ... Mit XXXV. angehängten Figuren der Stern-Bilder ...

35 woodcuts, 11 ff. + 260 pp. + 6 ff. 8° *Halle*, 1742.

Senex, John: Stellarum fixarum hemisphærium boreale [australe], In quo omnes stellæ in Catalogo Britannico descriptæ in plano Eclipticæ, eo situ quem anno 1690 habuerunt, delineantur; ...

2 plates, 27 in. × 27 in., *London*, s.a.

Society for the Diffusion of Useful Knowledge: [Six maps of the stars.] Anno 1830.

6 maps, 10½ in. × 10½ in. [*London*, 1832]

— The same. [Epoch 1840.0] ... by J. W. Lubbock.

6 maps, 24 in. × 24 in. [*London*, 1836]

Strauch, Ægidius: Astrognosia, synoptice et methodice ... Addita Sunt Asterismorum et planetarum schemata, æreis laminis expressa. Editio Tertia, ...

Frontispiece, 35 plates, 4 ff. + 208 pp. 12° *Wittebergæ*, 1678.

Autograph of *Gottfried Kirch* on frontispiece.

Turin: Reale accademia delle scienze di Torino Regio Osservatorio. Atalante di carte celesti contenenti le 634 stelle principali visibili alla latitudine boreale di 45°... e catalogo delle posizioni medie ... per l'anno 1880. [Alessandro Dorna.]

xii. plates, 2 ff. fol. [*Torino*, 1870]

Vaugondy, Robert de: *Uranographie* ou description du ciel ... pour l'année 1763.

2 maps, 23 in. diam., viii. + 49 pp. 4° *Paris*, 1764.

The author has carefully defined the limbs of the figures, e.g. *le Bras gauche*, *le Pied gauche de devant* &c.

[Williams, John]: Chinese Celestial Atlas. The Twenty Eight Stellar Divisions their determining Asterisms; their Extent North and South and East and West, with the three great Spaces.

16 plates, 2 ff. 4° [*London*, 1871]

In J. Williams' *Observations of Comets extracted from the Chinese Annals.*

Wöckel, Johann Simon Lorenz: Neue Sternkarte in zwei Blättern.

2 plates, 22 in. × 21 in., 10 pp. 8° *Nürnberg*, s.a.

Plates are designed to form a planisphere with a disk 19 inches in diameter.

Wollaston, Francis: The Northern Circumpolar Region laid down from observation, and adapted to the beginning of the year 1800.

7 plates, 1 f., fol. [*London*] s.a.

Star Charts:

See Albumasar.
Apianus, P., 1532, 1533 and 1540.
Bentley, John.
Decimator, H.
Gallucci, G. P.
Graminæus, T., p. 96.
Grienberger, C.
Hill, John.
See Hyginus, C. J.
Leupoldus, 1489.
Montignot, H.
Ptolemy, Cl., 1551 and 1795.
Radinus, T.
Santbech, D.
Zahn, J., 1696.

Many of these works have only a few rough woodcuts of constellations or merely figures of the zodiacal signs.

Star of A.D. 1572, New: La Novvelle estoille apparve svr tovs les climats dv monde: Et de ses effects. *Avec la Declaration de la Carte de M' Leonard Turneisserus* ...

28 pp. + 2 ff., last blank, 8° *Paris*, 1590

Woodcut on title.
Compare Thurneysser zum Thurn, L.
Chasles 3327.

— *See* Gosselin, J.

Stark, James: * On the influence of Colour on Heat and Odours. 28 pp. 4° *London*, 1833

Stark, John: * Notice regarding the Discovery of Live Cockles in a Peat Moss at a great distance from the Sea. 6 pp. 8° *Edinburgh*, 1825

Stathmion, Christoph: Practica: ... mit fleysz gestelt / Auff das Jahr. M.D.LXXI.

8 ff. 4° [*Augspurg*] s.a.

Woodcuts of Jupiter and Venus on the title.

Statics: Treatise on Statics, ...
2 plates, vi.+66 pp. 8° *Cambridge*, 1833

Staudt, Georg Karl Christian von: Geometrie der Lage. vi.+216 pp. 8° *Nürnberg*, 1847

Stechert, Carl: *Definitive Bestimmung der Bahn des Cometen 1881 IV. Inaugural-Dissertation.
30 pp. 4° *Kiel*, 1884

Steczkowski, Johann Cant: De longitudine geographica Cracoviae. 8° [*Cracoviae*] 1832
Imperfect.

Steeg, Wilhelm: Preis-Verzeichniss optischer Instrumente, ... und Präparate ... zur Polarisation des Lichtes.
28 pp. 8° *Homburg vor der Höhe*, 1873

Steen, Adolph: De vi et natura infiniti mathematici. 32 pp. 4° *Hauniae*, 1845

Steichen, —: *See* Stevin, S.

Steinbrück, Johann Melchior: De Magia Mathematica sive Algebra, Commentatio: ...
56 pp. 4° *Dresdae*, 1719
At the end is a short bibliography of Algebra.

Steiner, Jacob: Die geometrischen Konstructionen, ausgeführt mittelst der geraden Linie und Eines festen Kreises, ...
2 plates, 110 pp. 8° *Berlin*, 1833

— Zur Erinnerung an Jacob Steiner. Ein Vortrag ... von C. F. Geiser.
37 pp. 8° *Schaffhausen*, 1874

Steinhäuser, Johann Gottfried: De magnetismo telluris commentationis mathematico physicae sect. I. magnetis virtutes in genere proponens.
1 plate, 52 pp.+1 f. *Wittebergae*, 1806
Wants pp. 40-48.

— The same. Sectio II. De inclinatione acus magneticae in aream sphaerae magnetem, cuius innotescunt et locus et efficiendi facultas, continentis ... 1 plate, 50 pp. *Vitebergae*, 1810

Steinhauser, Anton: Über die geometrische Construction der Stereoscopbilder.
5 plates, 4 ff.+52 pp. 8° *Graz*, 1870

Steinheil, Adolph: Tafeln zur Entnehmung der Radien von Fernrohrobjectiven deren innere Flächen in einanderpassen. Inaugural-Abhandlung. 2 plates, 9 pp. 8° *München*, 1858

Steinheil, Karl August: *Elemente der Helligkeits-Messungen am Sternenhimmel.
4 plates, 140 pp. 4° *München*, 1836

— Ueber Telegraphie, insbesondere durch galvanische Kräfte. [Beilage, Beschreibung ... des galvano-magnetischen Telegraphen zwischen München und Bogenhausen, errichtet im Jahre 1837 ...]. 2 plates, 30 pp. 4° *München*, 1838

— *Ueber das Bergkrystall-Kilogramm auf welchem die Feststellung des bayerischen Pfundes ... beruht. 84 pp. 4° *München*, 1844

— *Über genaue und invariable Copien des Kilogrammes und des Mètre prototype der Archive zu Paris ... und über die Mittel zu ihrer Vervielfältigung.
1 plate, 40 pp. + 2 ff. 4° *Wien*, 1867

Steinmetz, Moritz: Arithmeticæ præcepta, in qvæstiones redacta cvm exemplis vtilibvs, vt facilivs discentibvs proponi, ... possint. Quibus accessit Ratio breuis supputandi distantias locorum, ... à Mauricio Steinmetz Gersbachio.
1 table, 120 ff., 2 blank, *Lipsiæ*, 1575
Chasles 1992.
"Sur un des plats de la reliure, on remarque le portrait, frappé à froid, du duc Auguste de Saxe; de l'autre côté, se trouvent les armes du même."

[Steinmetz, Valentin]: Von dem Cometen welcher im Nouember des 1577. Jars erstlich erschienen / ... vnd noch am Himmel zusehen ist / ...
12 ff. 4° [*In fine*]: *Magdeburg* [1577]
Woodcut on title.

Stellar Magnitudes: Report of Committee A. A. A. S. Second [Third] report of the committee on standards of Stellar magnitudes.
2 pp., 9 pp. 8° s.l., s.a.

Stelliola, Nicoló Antonio: Il telescopio *over* ispecillo celeste.
6 ff.+142 pp.+1 f. 4° *In Napoli, Per Domenico Maccarano. M.DC.XXVII.*

Stenhouse, William: Tables of Simple Interest, and of Commission, Brokerage, or Exchange, ... to which are annexed, a Complete Ready Reckoner, ...
4 ff.+xx.+511 pp. 8° *Edinburgh*, 1806

Steno, Nicolaus: De solido intra solidvm natvraliter contento dissertationis prodromvs.
1 plate, 78 pp.+1 f. 4° *Florentiæ*, 1669

Stephanides, Basil: Tractatus de legibus communicationis motus.
1 plate, 64 pp.+1 f. 8° *Florentiae*, 1791

Stepner, Stephan: Contemplatio physica De Coelo. 10 ff. 4° *Wittebergæ*, 1635

Stern, Moriz Abraham: * Recherches sur la théorie des résidus quadratiques.
38 pp. 4° *Bruxelles*, 1841

— * Combinatorische Bemerkungen.
22 pp. 8° *Göttingen*, 1845

— [Populäre Astronomie.] Himmelskunde.
iv.+412+viii. pp. 8° *Stuttgart*, 1846
Diagrams in text.

— Résolution des équations transcendantes traduit ... par E. Lévy. 99 pp. 8° *Paris*, 1858

— * Ueber den Werth einiger Summen.
20 pp. 4° *Göttingen*, 1872

— *See* Benfey, T.
Gauss, C. F.

Sternberger, Gottfried: *Gratiâ Stellæ illius splendidæ & Matutinæ.* Αστερολογια φυσικη *Sive* Dissertatio Physica De Stellis, Quam In ACaDeMIa LIpsIensI, ... sistit.
14 ff. 4° *Lipsiæ* [1655]
Johann Gottfried Olearius was the respondent.

Sterne, Simon: The Railway in its relation to public and private interests. ...
38 pp. 8° *New York*, 1878

Stevenson, Alan: A Rudimentary Treatise on the History, Construction, and Illumination of Lighthouses. 2 parts.
14 plates, viii.+131, vi.+204 pp. 12° *London*, 1850.

Stevin, Simon [Stevinus]: Les Œuvres Mathematiques de Simon Stevin de Bruges. ... *Le tout reveu, .:.* Par Albert Girard.
4 ff.+222 pp.+1 f.+678 pp. fol. *Leyde*, 1634

— Mémoire sur la vie et les travaux de Stevin. Par Steichen.
5 plates, 242 pp. 8° *Bruxelles*, 1846

Stewart, Balfour: An Elementary Treatise on Heat. xx.+392 pp. 8° *Oxford*, 1866
Figures in text.

— *See* De La Rue, W.

Stewart, Balfour, and Loewy, Benjamin: * An account of the Base Observations made at the Kew Observatory with the Pendulums to be used in the Indian Trigonometrical Survey.
15 pp. 8° *London*, 1865

Stewart, Matthew: Some general Theorems Of considerable use in the higher parts of Mathematics.
4 plates, 2 ff. + 163 pp. 8° *Edinburgh*, 1746

— Tracts, Physical and Mathematical. Containing, An Explication of several important points in Physical Astronomy; ...
19 plates, 411 pp. 8° *Edinburgh*, 1761

— The Distance of the Sun from the Earth determined, by the Theory of Gravity. ...
2 plates, viii.+103 pp. 8° *Edinburgh*, 1763

— *See* Landon, J.

[Stiborius, Andreas] [Stöberl]: Libellvs Linconiensis de phisicis lineis angvlis et figvris per qvas omnes acciones natvrales complentvr.
6 ff., last blank, 4° [*In fine*]: *Tractatulus iste ... impressus Nurenberge Anno salutis MCCCCC.III.* ...
Rude woodcut on title.

Stieber, Friedrich Carl Gustav: * Die Wahre Gestalt der Planeten- und Kometenbahnen.
2 plates, 35 pp. 4° *Dresden*, 1864

Stifel, Michael [Stiefel]: *See* Rudolff, C.

Stirling, James: *Methodus Differentialis:* sive Tractatus de summatione et interpolatione Serierum Infinitarum.
3 ff.+153 pp. 4° *Londini*, 1730

— The differential method: or, a Treatise concerning Summation and Interpolation of Infinite Series. Translated into English, ... by Francis Holliday. vii.+141 pp. 4° *London*, 1749

— *See* Newton, I., 1797.

Stirrat, David: The philosopher's stone of Business Figures. A newly-discovered method of casting-up the price of goods, by the aid of three small tables. ... 48 pp. 12° *Paisley*, 1851
Appended is a leaf of autograph notes by Alexander Gardyne.

Stockwell, John N.: Theory of the Moon's Motion. xvi.+44 pp. 4° *Philadelphia*, 1875

Stöffler, Johann: Joannis Stöfler Justingensis germani Tabulæ Astronomicæ. Verarum mediarumq; coniunctionū & oppositionum Solis & Lunæ ... supputatio ... Cyclorum patrum antiquorum de coniunctionū ... reditu imperfectio & fere redargutio. Eclipsium luminarium prædictio.

24 ff. fol. [*In fine*]: *Tubingę per Thomam Anshelmum. Anno.* 1514.

The two last folios form a large *Instrumentum astrologium* with a movable index.

— Calendarivm Romanvm magnum, Cæsareę maiestati dicatum, D. Ioanne Stœffler iustingensi Mathematico authore.

4 diagrams, 48 woodcuts, 138 ff. fol. [*In fine*]: *Impressum in Oppenheym per Jacobum Köbel. ... Die 24. Martij Mensis. Anno* 1518.

The title and dedication are enclosed in broad woodcut borders. The 6 folios of the *Abacus Regionum* are illustrated by 24 small views of cities, and a representation of the chief occupation, with a medallion of the zodiacal figure, are given for each month. Eclipse diagrams are supplied from A.D. 1518 to 1573. The tables, calendar and diagrams are printed in black and red.

— Ephemeridvm opvs ... à capite anni redemptoris Christi M.D.XXXII. in alios XX. proximè subsequentes, [1532-1551] ... elaboratum.

38 ff. + 14 × 20 ff. 4° *Tvbingæ per Hvldenrichvm Morhart Ann. XXXI. Kal. Sept.* [1531].

Portrait on title.

— The same.

2 tables, 38 ff. + 14 × 20 ff. 4° *Tvbingae per Hvlderrichvm Morhart Ann. XXXIII. Kl. Feb.* [1533].

Also with woodcut portrait on title, but from a different block from that in the edition of 1531. The 38 introductory folios are also different, but the ephemerides are part of the old impression.

— Petrus Iordan Lectori S.D. En tibi nvnc itervm ... Coelestivm Rervm disciplinae, ... peritissimi, Iohannis Stœflerini Iustingensis ... uariorum Astrolabiorum compositionem seu fabricam, necnon eorundem usuum ... explanationem, ex postrema autoris recognitione ... cudenda præsumpsimus, & ... cum propositionibus, tum earum expositionibus, in meliorem formam quàm antea fuerant, redigenda, ... curauimus. ...

52 figures, 8+77 ff. fol. [*Moguntiæ*] 1535

Device on title.

— Traité de la Composition et Fabrique de l'Astrolabe, & de son vsage: ... traduit du Latin ... *Auecques annotations ... par Iean Pierre de Mesmes.* 2 tables, 20+223 ff. 8° *Paris*, 1560

Many woodcuts.

Chasles 3484.

Stöffler, Johann, und Pflaum, Jacob: Almanach noua plurimis annis venturis inseruientia: per Ioannem Stoefflerinum Iustingensem & Iacobum Pflaumen Vlmensem accuratissime supputata: & toti fere Europe dextro sydere impartita.

36 ff. 4° [*In fine*]: *Opera arteque impressiōis mirifica viri solertissimi Ioannis Reger Anno salutis Christi domini 1499. Idibus Februarijs he Ephimerides noue explete atque absolute sunt Vlme. ...*

The introduction only, without ephemerides. The text is Gothic, but the title and *In fine* are in Roman characters.

— Ephemerides anno virginei partus. ... 1499.

4 ff. 4° [*Ulm*, 1499]

Without signatures. It is apparently a single year taken from the *Almanach noua* printed at Ulm in 1499.

— Ephemerides anno virginei partvs 1501.

14 ff. 4° [*Ulm*, 1499]

Apparently taken from the *Almanach nova* of 1499. It is remarkable that the "5" in "1501" on the sub-title is of the antique form, although modern figures are used in the ephemerides, which are printed with the same types as those for 1499.

— Almanach noua plurimis annis Uenturis inseruientia: ... accuratissime supputata: ⁊ toti fere Europe dextro sydere īpartita.

16 ff. 4° [*In fine*]: *Anno a virgineo partu. M.d.iiij. die. ij. Januarij. ... Impresse sunt Uenetijs. Opera ... Petri Liechtensteyn Coloniēsis germani. ...*

The title and first part of the introduction with the register which shows that the whole work contains 38+28×14 ff.

— Almanach noua plurimis annis [1506-1531] venturis inseruientia: Per Joannem Stoefflerinum Justingēsem ⁊ Jacobum Pflaumen Ulmensem accuratissime supputata: ⁊ toti fere Europe dextro sydere īpartita.

42 ff. + 14 × 26 ff. 4° [*Colophon*]: *Petrus Liechtenstein Die. 3. Januarii. āno* $\frac{M.D.VI}{1506}$ *Venetiis.*

— Almanach noua plurimis annis venturis inseruientia: ... Nouissime recognita: cunctisq; mendis expurgata. 1522. [-1531.]

22 ff. + 19 × 14 ff. 4° [*In fine*]: ¶ *Venetijs mādato ⁊ expensis nobilis viri Luceantonij de giunta florentini Anno domini. 1522. Die. 5. maij.*

Stokes, George Gabriel: * On the Steady Motion of Incompressible Fluids.

15 pp. 4° *Cambridge*, 1842

— * Report on Double Refraction.

30 pp. 8° *London*, 1863

Stolte, Peter: *Dissertationem* ... De Maculis Solaribus ... Ventilandam sistunt, Præses M. Jo. Hermannus Becker, & respondens Petrus Stolte.
52 pp. 4° *Rostochii*, 1723

[Stone, C. P.]: Publications of the Egyptian General Staff. Provinces of the Equator. Summary of Letters and Reports of ... the Governor-General. Part I.—Year 1874.
1 map, 4 plates, 8° *Cairo*, 1877

Stone, Edmund: *See* Euclides Megarensis, 1731.
L'Hospital, G. F. de.
Theodosius.

Stone, Edward James: The Cape Catalogue of 1159 Stars, deduced from observations at the Royal Observatory, Cape of Good Hope, 1856 to 1861, reduced to the epoch 1860.
xii.+69 pp. 8° *Cape Town*, 1873

— Places of Eight close Southern Polar Stars.
13 pp. 8° *Cape of Good Hope*, 1874

— Catalogue of 12,441 Stars, for the epoch 1880; from observations made at the ... Cape of Good Hope, during the years 1871 to 1879.
1 chart, xxxii.+565 pp.+1 f. 4° *London*, 1881

— On the Change in the Adopted Length of the "Tabular Mean Solar Day," ...
9 pp. 8° *London*, 1883

— * An explanation of the principal cause of the large errors at present existing between the positions of the Moon deduced from Hansen's Tables, and from Observation; ...
11 pp. 8° *London*, 1883

— * On the change in the adopted length of the "Tabular Mean Solar Day," which takes place with every change in the adopted value of the Sun's mean sidereal motion.
9 pp. 8° *London*, 1883

— *See* Observatories.
Cape of Good Hope.
Oxford—Radcliffe Observatory.

Stone, Ormond: * Report on the Total Solar Eclipse of 1878, July 29.
1 plate, 14 pp. 4° *Washington*, 1880

— * On the Extra-Meridian Determination of Time, by means of a portable Transit-Instrument. 6 pp. 8° *Cincinnati*, 1880

Stone, Ormond—*cont.* * On the Determination of the Error and Rate of a Clock.
5 pp. 4° *Dublin*, 1881

— * Note on the Computation of Special Perturbations. 3 pp. 4° *Dublin*, 1882

— *See* Observatories. Cincinnati.
Virginia, University of.

Stonehouse, Samuel: A New and [...] Book of Interest in Tables, calculated to a Farthing; at $2\frac{1}{2}$, 3, $3\frac{1}{2}$, 4, 5, 6, 7, and 8 *per Cent.* ... The Tenth Edition. 352 pp. 16° *London*, 1772
One word of the title has been cut off.

Stoney, Bindon B: * On the application of some new Formulæ to the Calculation of Strains in Braced Girders. 9 pp. 8° *Dublin*, 1859

Stoney, George Johnstone: * On an easily constructed Stereoscopic Magnifier of Low Power.
2 pp. 8° *Dublin*, 1860

— * The Story of the November Meteors.
1 plate, 11 pp. 8° *London*, 1879

— * How Thought presents itself in Nature. A discourse ... 19 pp. 8° *London*, 1885

— * On how thought presents itself among the phenomena of Nature: ... with ... Explanatory Notes. 11 pp. 8° *Dublin*, 1885

Storer, F. H.: *See* Warren, C. M.

Strabo: Strabonis illustrissimi scriptoris Geographia decem et septem libros cōtinens E greco In latinū a Gregorio Typhernale et Buarino veronēse cōuersa Cum Indice haud quaq̄, aspnando propter meliorē litterarū ordinē seruatū.
14+clii. ff. fol. [*In fine*]: ... *Parisijs impressum Anno salutis. M.D.Xij.* ...

Strachan, Richard J.: * Life and Naval Career of Admiral Sir Richard J. Strachan, By Thomas A. Wise. 24 pp. 8° *London*, 1873

Strachey, Edward: Bija Ganita, or the Algebra of the Hindus. iii.+119 pp. 4° *London* [1813]

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In Chinese. Bound in 6 vols.
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"Contents of the Chinese Mathematical Work called ... Suy-wei-shan-fang Soo-heŏ, that is—The Science of Numbers of the School of Suy-wei-shan—a work compiled by several Chinese resident in the Department of Kin-hua-Foo, Province of Chĕ Keang, from the works of the Roman Catholic missionaries at Peking, during the Emperor Kanghe's reign, about A.D. 1700.
I.—The first ten volumes are on Mensuration, and are divided into three parts, viz.
1. Mensuration of granaries, &c., in 4 vols.
2. Land-surveying, in 3 vols.
3. A supplement to the above two parts, in 3 vols.
II.—Vols. 11, 12 and 13 contain Tables of Natural Sines and Co-sines, with corresponding tables of Tangents, Co-tangents, Secants and Co-secants, each set of Tables occupying one volume.
III.—Tables of Logarithmic Sines and Co-sines, Tangents and Co-tangents, to ten places of figures, in two volumes—the 14th and 15th.
IV.—Three volumes on *arc-ed*, or spherical triangles, forming two distinct parts,—contained in vols. 16, 17 and 18.
V.—On Dialling, with Tables of Latitudes and Longitudes (from the meridian of Peking) of all the principal cities and towns of China,—of the height of the North Pole above the horizon in various latitudes, &c.—in two parts,—the first part contained in the 19th vol., and the 2nd part (which is a supplement to the first) contained in vols. 20 and 21.
VI.—Vols. 22, 23 and 24 seem to be directions for finding the sun's altitude, with Tables of the same for various Latitudes, and at various periods of the year.
VII.—Vol. 25 contains Tables of the *Constant* or fixed stars, their distances from the ecliptic, &c.
VIII.—Tables of the *Central Stars*,—contained in Vol. 26.
IX.—Further tables of the *Central Stars*,—for various Latitudes, in three vols., the 27th, 28th, and 29th.
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Sheet, 11½ in. × 12¾ in., woodcut, 8¼ in. × 12⅜ in. s.l. [*circa* 1574].

This is the lower section only of a large astrological chart by L. Thurneysser. It is fully described in the anonymous work *La Novvelle estoille apparve svr tovs les climats du monde: Et de ses effects.* *See* page 428.

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Zeuner, Gustav Anton: *See* Koenigsberger, L.

Zeuthen, H. G.: Nyt Bidrag til Læren om Systemer af Keglesnit, der ere underkastede 4 Betingelser. [Inaugural Dissertation.]
2 ff.+97 pp.+1 f. theses 8° *Kjøbenhavn*, 1865

— *See* Tidsskrift for Mathematik.

Ziegler, Jacob: Grundlicher Bericht / Von den natürlichen ursachen Der Erdbidmen. Samt angehenkter Historischer Erzehlung / was mehrentheils darauf in unserem geliebten Vatterland erfolget. ... 8 pp. 4° *Zürich*, 1674

[Ziehen, —]: Nachricht von einer bevorstehenden groszen Revolution der Erde / ... Mit einem Anhange über das Buch Chevilla. Mit einer Vorrede, die den Vorgang der bereits gehabten Erdbeben enthält, ...
48 pp. 8° *Frankfurt und Leipzig*, 1783

Zihn, Christian Benjamin: Dissertatio mathematica de pvlchritvdine architectonica prior. [... Dissertatio posterior.] 2 parts.
48 pp. 4° *Wittebergae*, 1727, '28
Johann Andreas Heimburger was the *respondent* for the second part.

Zimmermann, Johann Jacob: Cometo-Scopia oder Himmel-gemäser Bericht / ... desz mitten im Nov. 1680sten Jahrs ... entstandenen ... Cometens. ... Nächst einem auszführlichen *Catalogo* aller Cometen / ...
4 plates, 9 ff. + 20 pp. + 1 f. 4° *Stuttgart* [1681]

— Cometo-Scopiæ Pars Altera. Oder Fortsetzung Gnädigst anbefohlenen Bedenckens / Uber den neulichen Cometen / ...
105 pp. 4° [*Stuttgart*, 1681]

Zimmermann, Martin: Anno 1664 den 18 Decembris S. N. Ist dieser ungewohnliche Comet, ... inn Augspurg ... gesehen worden. Martin Zimermann. exc.
Plate, 5 in. × 6¾ in. [*Augspurg*, 1664]

Zinger, N.: Die Zeitbestimmung aus correspondierenden Höhen verschiedener Sterne. Aus dem Russischen übersetzt von Heinr. Kelchner. Mit einem Vorwort von Otto Struve.
iv. + 102 pp. 8° *Leipzig*, 1877

Zinken genannt Sommer, H.: Untersuchungen über die Dioptrik der Linsen-Systeme.
8 + 162 pp. 8° *Braunschweig*, 1870

Ziwet, A.: *See* Somoff, J.

Zöllner, Johann Karl Friedrich: Grundzüge einer allgemeinen Photometrie des Himmels.
5 plates, xii. + 102 pp. 4° *Berlin*, 1861

— Photometrische Untersuchungen mit besonderer Rücksicht auf die physische Beschaffenheit der Himmelskörper.
7 plates, xxx. + 322 pp. 8° *Leipzig*, 1865

— Theorie der relativen Lichtstärke der Mondphasen. Zur Habilitation ... bearbeitet ...
1 plate, 52 pp. 8° *Leipzig*, 1865

— Über die universelle Bedeutung der Mechanischen Principien. 36 pp. 8° *Leipzig*, 1867

— Über die Natur der Cometen. Beiträge zur Geschichte und Theorie der Erkenntniss. Zweite ... Auflage.
10 plates, c. + 523 + xii. pp. 8° *Leipzig*, 1872

Zöllner, Johann Karl Friedrich—*continued.* * Zur Geschichte des Horizontalpendels.
10 pp. 8° *Leipzig*, 1872

— * Ueber den Aggregatzustand der Sonnenflecke.
18 pp. 8° *Leipzig*, 1874

— * Photometrische Untersuchungen über die physische Beschaffenheit des Planeten Merkur.
22 pp. 8° *Leipzig*, 1874

— Principien einer elektrodynamischen Theorie der Materie. Erster Band. I Buch.
1 portrait, 3 plates, cxxiv. + 444 pp. 4° *Leipzig*, 1876.
The work was not continued. The portrait is that of *Wilhelm Weber*.

— * Ueber die physische Beschaffenheit der Cometen. [Zweite Abhandlung.]
34 pp. 4° *Kiel*, 1876

— * Über die physikalischen Beziehungen zwischen hydrodynamischen und elektrodynamischen Erscheinungen und die Wiederlegung des elementaren Potentialgesetzes von Helmholtz durch elektrodynamische Versuche mit geschlossenen Strömen.
3 plates, iv. + 239 pp. 8° *Leipzig*, 1876

— * Untersuchungen über die Bewegungen strahlender und bestrahlter Körper. Erste [-Dritte] Abhandlung.
3 plates, 17 pp., 21 pp., 8 pp. 8° *Leipzig*, 1877

— Wissenschaftliche Abhandlungen. Erster [-Vierter] Band. 4 vols. 8° *Leipzig*, 1878, '78, '79, '81
The second volume is in two parts.

— Das Skalen-Photometer ... nebst Beiträgen zur Geschichte und Theorie der mechanischen Photometrie. 4 plates, 128 pp. 8° *Leipzig*, 1879

— Zur Aufklärung des Deutschen Volkes über Inhalt und Aufgabe der Wissenschaftlichen Abhandlungen von Friedrich Zöllner. ...
1 portrait, 208 pp. 8° *Leipzig*, 1880

— Das Deutsche Volk und seine Professoren. Eine Sammlung von Citaten ohne Commentar. ...
120 pp. 8° *Leipzig*, 1880

— Über den wissenschaftlichen Missbrauch der Vivisection. 2 plates, 394 pp. 8° *Leipzig*, 1880

Zöllner, Johann Karl Friedrich—*cont.* Erklärung der universellen Gravitation aus den statischen Wirkungen der Elektricität und die allgemeine Bedeutung des Weber'schen Gesetzes. ... Mit Beiträgen von Wilhelm Weber nebst ... Abdruck der Originalabhandlung: *Sur les forces qui régissent la constitution intérieure des corps ... par* O. F. Mossotti.

1 portrait, xvi.+112 pp. 8° *Leipzig*, 1882

The portrait is that of Newton.

— *See* Fischer, E. G.
Schuster, P. R.

Zömius, Gottfried: Dissertatio I [II] De Cometis vetervm pariter ac recentiorvm ervditorvm sententias ac opiniones exhibens.

4 ff., 8 ff. 4° *Vittembergae*, 1719

Zola, Francesco: Trattato di livellazione topografica. 1 plate, 8 ff.+134 pp. 8° *Padova*, 1818

Zucchi, Nicolo: Optica philosophia experimentis et ratione A fundamentis constituta. Pars prima. De Visibilibus, & eorum Repræsentatiuis. 12 ff.+415 pp. 4° *Lvgdvni*, 1652

Archducal arms on title and full-page allegorical design on *verso* of the second folio.

Zuchetta, Gio. Battista: Prima parte della Arimmetica ... *Per la quale con mirabile ordine, & nuoue Regole si risolue con marauigliosa facilità ogni dubbio mercantesco.* ...

14 ff., last blank, +412 pp. +2 ff. fol. *Brescia*, 1600.

Author's medallion portrait with the legend: *Io Baptista Svchetta. Ætatis. 48. ab eivs ortv post Christ: 1550. Aprilis. 21.* This part is all that was ever published.

Zuchold, Ernst Amand: Bibliotheca historico-naturalis et physico-chemica oder systematisch geordnete Uebersicht der ... auf dem Gebiete der gesammten Naturwissenschaften neu erschienenen Bücher herausgegeben von Ernst A. Zuchold. Erster [-Siebzehnter] Jahrgang. ... 1851 [-1867]. 17 vols. 8° *Göttingen*, s.a.

— The same. Herausgegeben von H. Guthe. Achtzehnter [-Einundzwanzigster] Jahrgang ... 1868 [-1871]. 4 vols. 8° *Göttingen*, s.a.

— The same. Herausgegeben von A. Metzger. Zweiundzwanzigster [-Fünfundzwanzigster] Jahrgang ... 1872 [-1875]. 4 vols. 8° *Göttingen*, s.a.

Züllich, Jacob Günther: *De Significatis & Effectibus* Stellæ novæ sive Cometæ circà principium Anni 1605. & paulò antè observati; Pluviæ Sangvinis Nimcij Silesiorum eod. hoc anno d. 12. Iunij de lapsæ; & Eclipsis Solis horribilis d. 12. Octobr. N. St. eod. anno factæ. ...

8 ff. 4° *Olsnæ Sil.*, 1605

Title within border.

The object treated of in the beginning of this tract is the New Star of 1604 which appeared in the constellation of Serpentarius.

Zulehner, Johann Anton: Versuch eines neuen Beweises der ersten Statischen Gründe mit beigefügten Sätzen aus der Philosophie.

1 plate, 2 ff.+52 pp. 8° *Mainz*, 1791

Zwerger, Max: Ueber Kältemischungen und die in denselben verbrauchten Wärmemengen.

84 pp. 8° *München*, 1881

MANUSCRIPTS.

Aben Ezra, Abraham: Liber Abrahami Auenezræ de diebus criticis. 10 ff. 4° s.l. [sæc. XVII.]

Chasles 3019.

"Provenant de la collection du médecin Baron. Baron était d'origine dauphinoise. Il a écrit sur la garde du volume cette note: Ce manusscrit est de la main de Philipe Baron mon Ayeul, apoticaire ordinaire du Roy."

Aboû-Zaid-Abn-al-Rahmân ibn Abd al-Aadir ibn Ali al Fâsî: [A treatise on algebra and astronomy.]

163 ff.+2 fly leaves, fol. s.l. [sæc. XVII.]

Chasles 2096.

"Manuscrit arabe du XVII^e siècle, avec des commentaires en marge et des additions de diverses époques postérieures."

Adye, John Willett: A Plan of Mathematical Learning taught in the Royal Academy at Portsmouth. Executed, By John Willett Adye, a student there. 4 ff.+559 pp. fol. s.l., 1762

Many drawings.

Alchabitius: [Begins]: In Gottes namē Amen Seich facht ann Dy Capittel in dem puch der eynfierung in dy Astrologey des Alkabici9 vnd ist gesetzt in ffünff vnderschaid. ...

31 ff. fol. [*In fine*]: ¶ *Also endt sich der Tractat der eynfeürung in dy Astrologey des maisters Alkabici9 vnd hat zü Teütsch gemacht Pruder Arnolt von freypurg ... Anno dm̄. 13.12. ...vnd ist geschribn̄ wordn̄ ... Durch purkhartten kekh zu Saltzpurg. Anno dm̄. 1.4.74.* ...

Old Arabic numerals.

A splendidly written MS. in German. Red and black ink on fine paper. The preservation is marvellous.

Alchemy: Primus liber de consideratiōe. 5.te ēēntie o'ium reꝫ transmutabiliuꝫ. ... Incipit liber de famulatu ph'ye euāgelio ...

63 ff. 4° [*In fine*]: *Mcccc°lxxvj° ... expleť fuit liber iste ꝑ me Nicolaū de regazola Ciuē Cremoñ et ad pñs hītantem in Ciui'te Bude reg' Hungharie: ...*

— Sur la Transmutation de l'Or et la manufacture des Pierres precieuses.

28 ff. fol. s.l. [sæc. XVIII.]

[Alexander de Villa Dei]:

[N]Ec Algorism9 Ars p̃sens dr̄ in qua
Talibꝫ nu'oꝰ ... [?] bis quīꝫ fig'is
P'ma q̄ sig't vnū duo vero secunda
Tercia sig't tria sic ꝑcede sinistre
Donec ad ex'mā venies que cifra vocat'
... 5 ff. 4° s.l. [*circa* 1450]

Is an arithmetical poem of 335 lines with the following parts: *Addicō, Subtraccō, Duplacō, Medicicō, Multiplicacō, Diuisiō, Ext'ccō radic' nu'i q'drati, Ext'ccō radic' nu'i cubici.* The last part that is without a heading begins: [*M*]*Vltiplicare volens per normas ...*

Old arabic numerals are used.

In the same hand as Sacrobosco's Algorismus, on paper and vellum mixed.

[Alfonso X., of Castile]: Tabula medioꝰ motuū ac ɔiūctiōꝫ oīm plāetaꝰ ex tabulis alphōcij.

[fol. 7 *verso* begins]: IN noīe dm̄ī amē. Ignorans motū ... [?] est ignora'e naturā q̄m scribit ph'9 3° phisitoꝰ ...

1 volvelle, 6 ff., tables, 5 ff. 4° [*circa* 1450]

On the fly leaf stands the title written by a later hand *Diu'se tabule alfonsii et aliorum d' medio motu...*[?] *et de signis.*

Algorismus: Incipt nouus algo'ism9 ꝑ f'rem mathiā ... ɔpilat'. 3 ff. 4° s.l. [sæc. XV.]

Alhazen: Incipit prim9 tractat9 libri Alhacen filii Alhaycen de aspectib9 et .VII. svnt differētie.

[fol. 185 *recto*]: De nubiū ascensiōe. c9 uer9 titulus est iste. Incipt lib' Abomadhi Matfagar .1. de c'pusculo matutino et uesptino ...

188 ff. fol. [*In fine*]: *Ego Magr̄ Guido dictus de Grana correxi diligenť istos duos libos. s. ꝑspectiuam Alhacen et librum de ascensōib9 nubium. Iux' exemplar Magri Joh'is londoniensis quod ip'emet diligt̄ correxit ut d'. Completa fuit correctio hoꝰ libºꝰ anno dm̄. M.°cc.°lx.° nono q'nto ydus Maij. s. ī vigilia penthecostes.*

On vellum. Many diagrams in red ink.

This work was afterwards printed at Basle in 1572.

Alkindus, Jacobus: Jacobus alkindi de radijs. [Begins]: OMnes ho'ies qui s'sibilia sensu ꝑcipiūt ea in aliqua forma ɔprehendūt. ...

15 ff. fol. s.l. [sæc. XV.]

Written by the same hand as that of *Quadripartitus Hermetis* ... Chasles 2982.

Analemma: *See* MSS. Instruments, Astronomical.

Archimedes: *Θεώρημα ὠ κεχρηται εν τω ψαμμίτη* 'O ΑΡΧΙΜΗΔΗΣ ... *σεσωσμένον ... ὑπὸ τοῦ* ΠΤΟΛΕΜΑΙΟΥ ... 2 ff.+32 pp. fol. s.l., s.a.

A memorandum states that this MS. was copied from the edition printed at Glasgow by Foulis.

From Eisenmann's collection.

[Aristotle]: Lib' phy'coꝰ ⁊ d' a'īa.

[Begins]: [Q]voniā quid' intll'ig'e ⁊ scire ɔtīgit c'ca oēs sciencias q'ꝰ sūt p'n' at cause aut eleīñta ex eoꝰ cog'tōe. ...

[fol. 66 *recto* begins]: [H]Onoꝰ honorabliū noticia' ...

[fol. 91 *recto* begins]: [D]E gn'oe et corrupt'oe. ...

111 ff. fol. s.l. [*In fine* fol. 90 *verso*]: *Deo gra's a MCvj.*

Beautifully written MS. on vellum.

Old Arabic numerals.

Arithmetic: Capitulū primū de spe'b9 matematicalis scie' quarū sūt quattuor. [Ca: 2dū de Aritca in se et eius diuisione. Ca: Terciū de Numeracōñ. Ca: 4tū de Additione. Capitulum 5tū De Subtractōñ. Capi: 6tū de Mediacōñ. Calū 7timū de Duplacōñ Ca: 8uū De Multiplicacōñ. Ca: 9. De Diuisioñ Ca: 10 De ꝑg'essioñ. Vltimū Ca: De radicū ext'actōñ in nu'is quadratis.] 4 ff. 4° s.l. [*circa* 1500]

— [Begins] [S]Equitur de radicū ex'cciōe ⁊ p'mo in nu'is quadrit' ... 4 ff. 4° s.l. [sæc. XV.]

Old Arabic numerals.

— Traité de la puissance des nombres.

54 ff. 8° s.l. [sæc. XVII.]

Chasles 2055.

"Manuscrit arabe. *Le commencement et la fin manquent.*"

— *See* MSS. Astronomy.

Arzachel [Abraham Alzarachel]: [Tabulæ Toledanæ ...]. [Begins on *verso* of *fol.* iii.]: Tabula ad inueniendū tp̄s nabugadonozor ꝑ tp̄s dnī nr̄ī ih'u xp̄i.

104 ff. vellum, 4° *Massiliæ?* [sæc. XIV.]

This MS. closely resembles the tabular part of the one described by Delambre on pp. 176 *et seq.* of the *Histoire de l'Astronomie du moyen âge.* It begins with 12 pp. of chronological tables, followed in succession by:—

3 pp. Tabula arcus & cordæ. This is really a table of natural sines for every 30′ to a radius of sixty "degrees," *e.g.*, "Corda" 20°=20° 31′ 16″, "Corda" 30°=30°.

One table of declinations and three of ascensions in 28 pp.

TabuLa vmbræ, 1 p. This is a table of cotangents, with 12 for the radius. Umbra 1°=687° 26′, the true value being 687° 28′.8.

Tables of the Sun, Moon and Planets *ad mediam diem ciuitatis toleti*, 60 pp.

Eight sundry tables, 39 pp.

Tabula ad inueniendum loca stellarum fixarum magis famosarum, 1 p. The places of 40 stars are given for about the year 1160.

Tabula longitudinum & latitudinum ciuitatum mundi magis famosarum, 1 p. 64 places are named but one or both co-ordinates are wanting for 11 of them. *Verona* and *Padua* have been added in a later hand.

Tabula proiectionum radiorum, 6 pp.

1 diagram and 3 tables partly after "ptholomeum," 13 pp.

Tabula ad inueniendum tempus per altitudinem solis, 17 pp.

Tabula medij cursus solis [lunæ ...] in annis & mensibuz xp'i., 10 pp. At the foot of the first page is written in the same beautiful hand as the rest of the volume, "Incipiunt tabule mediorum cursuum planetarum in annis & m̄sibus domini nrī ih'u xp'i ad meridiem ciutatis marsiliæ, compositæ a magistro willelmo anglico.

5 pp. blank.

Tabula mediæ ɔiunctoīs ... ad m'idiem ciutatis nouariæ [Novara] quibus lōgitudo ab occ'nte ē .30. gr. & 50. m. & latitudo eius ē .45. gr., 2 pp.

At the end are 5 pp. written at a later date, but probably before the 16th century, which contain an extension of the geographical table, instructions for finding the longitude by an eclipse of the moon, and a set of mnemonical latin verses on biblical chronology.

The *Tempus equalis lunatioīs* used in the tables is $29^{d.}\ 12^{h.}\ 44^{m.}\ 3^{s.}\ 20^{t.}$ which is less than half a second ($0^{s.}\ 46$) more than the modern value. The accumulated error in 630 years would but slightly exceed one hour.

Willelmus Anglicus, who was also known as Gulielmus Grisauntus or Grisantus, lived at Marseilles about the year 1350. He wrote *De qualitatibus astrorum et significationibus; De magnitudine Solis; De quadratura Circuli, &c.* *See* Jöcher.

Astrology: [Begins]: [V]Niu'sa [universa] q. iudicia a lūari ducata sūmūt efficaciā Venus ♀ jupit' vt est indoϤ autoritas fortunate sūt stelle reliquas ēs infortunatas dicūt. ...

8 ff.+2 ff. tables, 4° s.l. [sæc. XV.]

Old Arabic numerals. On paper and vellum mixed.

— [Begins]: Causa dicit' quatuor modis. s. causa. in.'l' for'l'. efficiens ♀ c'a final'. ...

17 ff. 8° s.l. [*ante* 1500]

Old Arabic numerals. On vellum.

— [Begins]: Omnis ꝑporcō aut est cōit' dicta. ꝑprie. aut magis ꝑ'pe dicta. ...

15 ff. 8° s.l. [*ante* 1500]

Old Arabic numerals. On vellum.

— [Set of eleven astrological diagrams on vellum of which eight have movable indices.]

9 ff., 3 blank, 4° [sæc. XV.]

With these are ten figures, in part with volvelles, to illustrate Copernicus's *De revolutionibus orbium cœlestium.*

Astrology—*continued.* *See* MSS. Calendars.

Astronomy: [Plusieurs traités relatifs à l'astronomie.—Manière de placer le fil à plomb sur la ligne méridienne.—Calendrier égyptien.—Traité d'arithmétique.] 129 ff. 4° s.l. [sæc. XVIII.]

Arabic manuscript. The treatise on arithmetic was printed at Rome in 1866 by F. Woepcke preceded by a notice by A. Marre. *See* p. 476.

Chasles 3158.

Bacon, Roger: The woorke of ye philosophers approved by Roger Bacon.

Title + 14 ff. 8° s.l., s.a.

Incomplete.

Barlaam, —: Βαρλαὰμ μονάχου λογιστικὴ ἀστρονομική. 18 ff. fol. s.l., s.a.

To all appearance a modern copy of a MS. in some Library. Belonged to Eisenmann. Jöcher says that the author flourished about A.D. 1330, and also that an edition of this work was published in 4° at Paris in the year 1600.

Barrabinis, Franciscus Maria de: Musævm mathematicvm ex variis illvstrivm avctorvm libris Subsecundario Tempore Elaboratum Opera, ac Studio; Francisci Mæ de Barrabinis Genuensis civis.

Frontispiece, 2 plates, 5 ff., pp. 477 to 989, 4° *Genvæ, Anno Virginei Partûs*, 1706, &c.

Apparently the second volume of a MS. collection of extracts from the writings of Schott, Scheubel, Ghetaldus, Wingate, Pardies, Gellibrand and many others.

Béchaux, S.: Woolwich Questions in Mixed Mathematics 1856-1862.

8° *Woolwich* [1856-1862]

— Trigonometry. Examples in Colenso's Trigonometry. 12° [*Woolwich*] 1857

— Parabola. 666 pp. 8° [*Woolwich*] 1863

— Circle. 8° [*Woolwich*] 1864

— Integral Calculus. First volume. 712 pp. 8° [*Woolwich*] 1864

— Treatise on the Ellipse. 1147 pp. 8° [*Woolwich*] 1866

— On the Plane Triangle. 900 pp. 8° [*Woolwich*] 1866

— Differential Calculus. Volume I [II] Functions of one independent variable. 2 vols. 8° [*Woolwich*] s.a.

— Hydrostatics. 788 pp. 8° [*Woolwich*] s.a.

— Elementary Dynamics. [Dynamics.] 2 vols. 8° [*Woolwich*] s.a.

— A Treatise on Mechanical Geometry. 4 vols. 12° [*Woolwich*] s.a.

Béchaux, S.—*cont.* A Treatise on Solutions of the Examples in the first part of Colenso's Algebra. [Solutions of the miscellaneous Examples. Part I.] 2 vols. 12° [*Woolwich*] s.a.

— Algebra. [Solution of the Algebraical Examples in Wrigley's Examples and Problems in pure and mixed Mathematics.] 2 vols.
12° *Woolwich*, s.a.
In Vol. 2 is a List of Béchaux's Works.

— [Wrigley's Trigonometry.]
309 pp. 8° [*Woolwich*] s.a.

— Point and Right Line In one Plane.
12° [*Woolwich*] s.a.

Bonatus, Guido: Incipit tractat' Ā' de ellectiōib'ȝ secdīm dta sapiētuȝ capm pm ...
ff. 1-38 fol. s.l. [sæc. XIV.]

— Incipit ītodutorīm sub breuil'oqo ad iudicia stellaȝ secūdum quidonē [*sic*] bonatum :—
ff. 45-103 fol. s.l. [sæc. XV.]
Neatly written upon vellum, with a few ornate initials, in an old wrapper, marked "Proibito."
Celebrated astrological treatises originally written about the year 1280. They were printed several times in the fifteenth and sixteenth centuries.

Bouguer, Pierre: Triangulation de la Méridienne trouvée au Pérou en 1736 Par Mrs Bouguer, La Condamine & Godin.
Drawing, 9 in. × 50 in., s.l., s.a.
Shows many details that are not on the engraved map in Condamine's *Mesure* ... Paris, 1751.

Boulainviller, Henri de: Pratique abregée des jugemens astrologiques sur les nativitez. 1er [-3e] Volume. 3 vols.
4° [*In fine tomi tertii*]: *Parisiis*, 1719

Bourjé, J. P.: Zon Eclips op den 19 November 1816 voor Middelburg. [Zons Verduistering op den 7den September 1820 ... voor Leiden. Projectie der Zon Eclips van den 7den September 1820.] 3 drawings with text, fol. s.l., 1816

Bremiker, Carl: Die Bahnen der Asteroiden ... Projection auf die Ecliptik, so wie die Bahnen vom Nordpol der Ecliptik aus erscheinen würden. Drawing, 20 in. × 24 in., *Berlin*, 1857
On it are drawn to scale the orbits of the first 42 Minor Planets and of the Planets inferior to them.

Calculating Machine: *See* MSS. Maclachlan, A.

Calendars: Calendarium perpetuum:
One roll, 44 in. × 2⅞ in., s.l. [*circa* 1339]
Written in colours on thin paper. Besides the usual calendar it contains a *Tabula magistri petri de dacia ad sciend' in qo signo sit luna &c in quo gradu illius signi.* According to Jöcher this author lived about A.D. 1300 and wrote *De calculo seu computo &c.* Old Arabic numerals are used. The eclipses range from 1339 to 1364.

— [A fragment of an Almanac]
fol., 5 in. × 10½ in. [*circa* 1400]
Old Arabic numerals. On vellum.

— [Begins]: CIrca noticiā et intellectū hȝ tabule ... 4 ff., tables, 7 ff. 4° s.l. [*circa* 1450]
Contains tables and instructions for computing calendars from 1460 to 1529. Old Arabic numerals.

— [Begins]: Qvamq̄ ōes hōies n'a scire desiderant [*sic*] vt ...
[fol. 1. *recto*]: D(?) Cam p'm de culo solari ...
[fol. 2. *recto*]: Capitulū 2m de culo lunari ...
[fol. 3. *recto*]: Capitulū 3m de culo indictonali...
...
[fol. 21. *recto*]: Capitulum decimūq̄rtū de nouilunio et plenilunio hoc est solis et lune ɔiūciōe et oppōe ... 25 ff. fol. s.l. [*circa* 1450]
Coloured diagrams with old Arabic numerals in text.

— [Calendarium perpetuum]:
7 ff., vellum, 9¼ in. × 6 in., s.l. [*circa* 1461]
The skins are folded to the size of 4½ in. × 1½ in., so as to form a Monastic Girdle Almanac. The eclipses are figured from 1461 to 1481, and with the rest of the almanac are illuminated in gold and colours. The old style figures are used.

— [Begins]: Henach sagt es von den newn Cometen / das sind stern mit schwenze ... Der mayst' Ptholomeȝ spricht das der Cometen newn seyen ... 468 ff. fol. s.l. [1464]
Many curious drawings in the text. The end of the MS. seems to be wanting. Treats for the greater part on Astrology.
Of astronomical interest are:
Explanation and computation of the calendar, ff. 5-36.
Almanach of the planets ... for a series of years in the 14th century. Tables for finding the positions of the stars at Vienna, ff. 189-230.
Tables of the sun, moon and planets computed from Alfonso's tables, ff. 231-251.
Henach volget die betüttung vnd ausslegung der Astronomey die gezogen ist vss den büchern der hohen mayster ... Ptolomeus, Albumasar, Alfoncius Aristoteles, Ypocras, Haly, Abenragel Theodosius Dorochinus, Alchindus Ysiderus Alfraganus Ambrosius Mayster Johannes Engellander genant De sacro busto Messehalla....
On Comets, ff. 323-345, on the Constellations, ff. 346-372.

Calendars—*continued.* Calendarium perpetuum: [Begins]: Ad noticiam istius kalendarij est ...
6 ff., vellum, 10⅝ in. × 7 in., s.l. [*circa* 1473]

Folded to 5¼ in. × 1⅞. The date is that of the first eclipse. This MS. is in good preservation, but is incomplete in so far that the diagrams of the eclipses have never been finished. On the case is written *Calendarium perpetuum Walteri Elvedon, Socij Aulæ de Gonville.*

— [Begins]: Tempus ē mēsura moꝫ [motuum] ...
28 ff., tables, 13 ff. [*Cremona?* sæc XV.]

The tables refer to the Sun, Moon and Planets, the time being expressed in the sexagesimal system.

They are all to be found in Alfonso's tables. The note on the solar and lunar tables *Radix ad cremonā* suggest that the MS. may have been written at Cremona.

Pretty MS. on vellum in red and black ink.

Modern Arabic numerals.

— Du nombre d'or. [Vsage des Talismans.]
42 pp.+2 ff. 4° s.l. [sæc XVII.]

Written by Philipe Baron.

— Von dem iar. 1.4.7.8. So hebt die tafel an vñ wert bis man zelt. 1496. In diser tafel findest du. den sonntäglichē buchstabē vnd die guldinzal das schaltiar ...
Woodcut, 11½ in. × 8 in., s.l., s.a.

Is a modern facsimile of a Calendar for the years 1478-1496 that was published at Ulm.

— *See* MSS. Astronomy.

Carrington, Richard Christopher: [Collections of Problems]:

1. Geometrical Deductions. Algebra. Theory of Equations. Chances, Plane and Spherical Trigonometry. 76 ff. 4° s.l., 1842-47
2. Plane co-ordinate Geometry. Conics. Solid Geometry. 76 ff. 4° s.l., 1842-48
3. Deductions from Newton. Differential and Integral Calculus. Differential Equations &c. 66 ff. 4° s.l., 1842-47
4. Statical Problems, Dynamics and Central Forces. 78 ff. 4° s.l., 1842-47
5. Optical Problems, Fluids, Gasses, Sound. 62 ff. 4° s.l., 1842-47
6. Astronomy, Light, Heat, Magnetism, &c. 39 ff. 4° s.l., 1842-47

— MS. Original Transit-Circle ledgers. 5 vols. fol. s.l., s.a.

Vol. 1.—1853, Sep. 3 to 1854, July 22.
" 2.—1854, July 23 to 1855, Sep. 8.
" 3.—1855, Sep. 8 to 1856, Sep. 20.
" 4.—1855, Jan. 10 to 1855, Dec. 21.
" 5.—1855, Nov. 22 to 1856, Sep. 20.

In vol. 1 are memoranda explaining the method of reducing the observations.

N N N

Carrington, Richard Christopher — *continued.* MS. Redhill Catalogue. Zone Corrections. 3 vols. fol. s.l., s.a.

— Atmospheric pressure and temperature: Durham, January 1850 [-Decr 1851].
24 diagrams, fol. s.l., s.a.

Along with it is the copper plate for these diagrams, with a surface of 14 in. by 8 in. ruled to tenths.

— Mathematical ... Problems.
4° bundle about 2 in. thick.

— *See* MSS. Lagrange, J. L. de.
Libri, G. B. I. T.

Cassini, Giovanni Domenico: Abregé d'Astronomie, Par feu Monsieur Cassini. [Composé en 1678 et copié d'après un MS. de Miraldi.] [Recoeuil de quelques Remarques Astronomiques, concernant les observations.]
93 pp.+5 ff. 4° s.l. [sæc. XVIII.]

The *Recueil* was written by another hand about 1730. Chasles 3097.

Chattock, John: Calendarium astronomicum. A compleat Ephemeris of the Cœlestial Motions: for the Year ... 1704. Containing all the Heliocentrical and Geocentrical Places and Aspects of the Planets, Lunations, Eclipses and Quarterly Ingresses... Calculated from Astronomia Carolina. ...[Exact Types of all the Eclipses of the Moon [Sun] that will be visible in England for 60 years, beginning ... 1703 And ending ... 1763 ...]
84 pp. 8° s.l., s.a.

A beautifully written MS. in imitation of letterpress.

Claphouwers, Dominicus: Boeck van de Cÿffer Konste gecÿffert ende gemaeckt door domenicus Claphouwers.
4 ff.+1043 pp. 8° [*Amsterdam*] 1694

Pretty MS. in Dutch. In the original binding with clasps.

Comets: *See* MSS. Calendars.
Hamont, — van.

Computus Cirometralis: [Computus Cyrometralis] [Begins]: COgnicio vei' [veritatis] de pausis tpm c'c motū solis et lu'e et alioꝫ plāꝫ cū sit tenebrosa ...
13 ff. 4° [*In fine*]: *Explicit compotus cyrometralis Completus. Sub anno Dm millesimo quadringentesimo Decimo octauo.*

Nearly the same as the following.

— Computꝯ Cirometralis [Begins]: [C]Ognicō v'itat' de pausis tpm c'ca motū solis ⊰ lu'e ⊰ alioꝫ pla'etaꝫ Cū sit tenebrosa ...
24 ff. 4° s.l. [*In fine*]: *Año dm MCCCCxxvij.*

Agrees closely with Johannis Glogoviensis *Computus Chirometralis* published at Cracow, 1511, but is not so extensive. The beginning corresponds with fol. A iii *verso* of the printed work.

Computus Cirometralis—*continued.* [Begins]: Benedictus deus ... 17 ff. 8° s.l. [*ante* 1500]

Treats on chiromancy, &c. On vellum.

Computus ecclesiasticus: [Begins]: [L]Icet modo infine tpm plures constat h're codices ...
8 ff. 4° s.l. [sæc XV.]

Excepting the preface and the notes, this MS. is in verse.

Computus Judaicus: [Begins]: [R]E pudet audi'e iudeū tl'ia sci'e
Debe't cle'ic9 nosce' q; potius.
... 10 ff. 4° s.l. [sæc XV.]

Computus sacerdotalis metricus: [Begins]: [S]Olaris cicl9 annos ten3 octo vigīti ab annis domini deās oc' mille q't' c'
Quod r'ma3 si potes pti'e p octo vigīti
Solaris cycl9 p r'siduū patefiet
... 8 ff. 4° s.l. [*circa* 1420]

In the same handwriting as *Computus Cirometralis* and *Computus Judaicus*. Old Arabic numerals.

Condamine, C. M. de la: *See* MSS. Bouguer, P.

De Morgan, Augustus: Mathematical Books. De Morgan Catalogue.
244 ff. fol. s.l. [sæc. XIX.]

Douglas, Ja.: The use of the Geometricall And Trigonometricall Quadrant.
7 plates, 2+88 ff. 4° s.l. [*circa* 1720]

— The proportionall Eclips dyall.
5 plates, 2 tables, 2+91 ff. 4° s.l., 1719

— Neper's Bones. [Instrumental Arithmetick performed by the numbering Rods, called Neper's Bones.]
3 tables, 24 ff. 4° s.l. [*circa* 1720]

— The description and use of a neuly invented Instrument caled Speculum Longitudinis. Uherby the longitude is found both by Sea and Land by the help of the Stars.
1 plate, 1 table, 30 ff. 4° s.l. [*circa* 1720]

This and the three other treatises by the same author form a stout volume which was dedicated to "George, Prince of Wales," afterwards George II.

— Dyalling after Severall Methods curiously Performed, Labore, Jacobi Douglas, 1725.
27 plates, 144 pp. fol. s.l., 1725

Driessens op Heyde, Ger. Ignatz: Traitté d'Horlogiographie contenant Plusieurs Manieres de construire, sur toutes surfaces, toutes sortes de lignes horaires, et autres cercles de la sphere.
119 plates, 19 tables, 22 ff. 4° s.l. [*circa* 1700]

The drawings are well executed, but the ink has come through and stained the paper badly in many places.

Faraday, Michael: Experimental Researches in Electricity. Nineteenth Series.
34 pp. fol. *Royal Institution*, 29 Oct^r^, 1845

— The same. Twentieth Series.
33 pp. fol. *Ibidem*, 27 Nov^r^, 1845

— The same. Twenty-first Series.
35 ff. fol. *Ibidem*, 22 Dec^r^, 1845

— The same. Twenty-third Series.
27 ff. fol. *Ibidem*, 14 Dec^r^, 1849

— The same. Twenty-fourth Series.
8 ff. fol. *Ibidem*, 19 July, 1850

— The same. Twenty-fifth Series.
37 ff. fol. *Ibidem*, 2 Aug., 1850

— The same. Twenty-sixth Series. Appendix.
191+3+5+3+4+5+6+4 ff.+tables, fol. *Ibidem*, 14 September, 1850.

— The same. Twenty-eighth Series.
43 ff. fol. *Ibidem*, Oct^r^ 9, 1851

— The same. Twenty-ninth Series.
1 plate, 33 ff.+4 pp. fol. *Ibidem*, 20 Dec^r^, 1851

With these are 32 duplicate figures in iron filings.

— The same. Series XXX.
35 ff. fol. *Ibidem*, Oct^r^ 9^th^, 1855

— On the Physical character of the lines of Magnetic force.
35 ff. fol. *Royal Institution*, 6 March, 1852

Appended to this paper are 3 pp. of comments by S. H. C.

— Observations on mental education.
41 ff. fol. s.l., 6 May, 1854

— On some points of Magnetic philosophy.
46 ff. fol. *Royal Institution*, 20 Dec^r^, 1854

Printed in the *Phil. Mag.* for Feb., 1855.

— The same. 8 ff. fol. s.l., January, 1855

A shorter paper than the preceding.

— [On the Action of Non-conducting Bodies in Electric Induction.—Letter to Dr. P. Riess.]
11 ff. fol. *London*, 19 Nov^r^, 1855

Printed in the *Phil. Mag.* for Jan., 1856.

— Experimental Relations of Gold (& other metals) to light. 58 ff. fol. s.l., 22 Nov^r^, 1856

— On the conservation of force.
23 ff. fol. *Royal Institution*, Jan^y^ 17, 1857

Flamsteed, John: [Tables of the sun and moon.]
38 ff. fol. s.l. [*circa* 1700]

Consist of *XXVII.*+11 tables, of which Tab. VI.-XXVII. refer to the Moon.

Some of the tables are identical with those in Flamsteed's *Lunares Numeri, Ad novum Lunæ Systema Ab Jeremia Horroccio Excogitatum* ... published at London in 1678, with Horrox's *Opera Posthuma.*

With the MS. is one leaf of the original MS., in Flamsteed's handwriting, dated and signed by him *Perfeci Maij mense exeunte, 1695.* The two sides of this leaf correspond to ff. 5 and 6. Fol. 38 contains 3 tables of refractions by Halley, by Newton, and by Flamsteed; opposite is inserted a like table by Dr. Brook Taylor.

Gaillet, —: Vsage De la machine d'arithmetique de l'invention du Sieur Gaillet, horlogeur à Paris.
7 plates, 22 pp. 4° s.l. [sæc. XVII.]

Chasles 2627.

Galilei, Galileo: Uso e Fabrica della Bilancetta del S. Galileo Galilei. [Lettera del Sig. Galileo Galilei sopra le Macchie Lunari ...]
2+46 ff. 4° s.l. [sæc. XVII.]

Chasles 3503.

Gautier, A.: *See* MSS. Struve, F. G. W.

Geometry: Beginselen der Geometri.
10 "plates," 123 ff. fol. s.l. [sæc. XVII.]

— Geometria Is een Konst om te leeren d'eigenschappen, en de Meting der grootheden, tot beijders verstand moet men vast stellen eenige Gemeene Bekentenissen. [Roij-Konst...][Volgt nu het ridders perspectief.]
20 "plates," 191+60 ff. 4° s.l. [*circa* 1750]

Diagrams in the MS.

— A Course of Promiscuous Problems. With original modes of determination.
78 ff. 4° s.l. [*circa* 1800]

Gerard of Brussels: [Begins]: Que magis recedunt a centro ut' ab axe īmobilu magis movent^{r} que min$\mathcal{9}$: minus. ... [*In fine*]: *Explicit Subtilitas magt'i Gerardi de bruxella de motu.*
11 ff. 4° s.l. [sæc. XIII.]

On vellum.

[Gerardus Cremonensis]: Incip' Theorica planeta$\mathcal{q}$. [Begins]: CIrculus ecentricus u'l eg'sse cuspidis u'l egrediēns centri d'r q nō h't cent' cū mūdo. ... 3 ff. fol. s.l. [sæc XII.?]

Agrees perfectly with the edition that was printed together with Sacrobosco's *Spera Mundi*, at Venice in 1478.

Old Arabic numerals are used in the text. On vellum.

On the back of the binding is printed *M. de XIIe siècle.*

— *See* MSS. Sacrobosco, J. de.

Gerson, Johannes de: Incipit tractatus ī sex lectionib$\mathcal{9}$ diuisus sup differēcia peccati mortalis a vēiali editus a mg'ro Johāne de gerson ⁊ miss$\mathcal{9}$ ab eodē epō pet^{o} de aliaco cardīali came'acēsi.
30 ff. fol. [*In fine*]: *Explicit año dm̄ Mcccclxxiiij ... finitus p hēricū de colōia ...*

Distinctly written.

Godin, L.: *See* MSS. Bouguer, P.

Grammatici, Nicaise: Tabulæ solis et lunæ ex Theoria Newtoniana ad Meridianum Ingolstadensem adaptatæ à P. Nicasio Grammatici S.J.
1 f.+8 pp. fol. [*Ingolstadt, circa* 1725]

Halcke, Paul: Vertaaling van het Artikel: Mathematische Rariteiten; uit 2 Calenders van P. Halcke van Ao. 1700 en 1711.
102 pp. 4° s.l. [*circa* 1700]

Written by M. J. Zuidhof.

Haly: Incipit libell$\mathcal{9}$ hali de sig'^{oe} planeta$\mathcal{q}$ cū sole in duodeci' signis. [Begins]: SAturn$\mathcal{9}$ in ariete sub radijs solis facit pluuias ...
2 ff. fol. s.l. [sæc. XV.]

By the same scribe as *Quadripartitus Hermetis* ...
Chasles 2982.

Hamont, — van: Physica Pars prima dictata â ... Domino van hamont ejusdem philosophiæ professore secundario. Scripta vero â me Petro pruuost Brugensi.
9 engravings, 249 pp. 4° *Lovanii*, 1764

Engraved title page.
The fifth chapter treats on Comets.

Hermes: Quadriptit$\mathcal{9}$ h'met' de 15 stellis lapidil$\mathcal{z}$ planet' et caracte'il$\mathcal{z}$. [Begins]: DIxit hermes Scito q' si lūa fu'it ... 10 ff. fol. s.l. [sæc. XV.]

Old Arabic numerals.
Chasles 2982.

Hippocrates: Hippocrates de mortis Significatione et vitæ secundum motum Lunæ, et aspectum Planetarum, Gilidoolo mordico Interprete.
11 ff. 4° s.l. [sæc. XVII.]

The MS. is written by Philipe Baron.
Chasles 3019.

Hopf, Gustav: [Autograph Letter to Charles Babbage.] 4 pp. 8° *Gotha*, 1848

Huyghens, Christian: Horloge de Christian fils de Constantin Huygens de Zulichem.

[De l'horloge à pendule par Christian Huygens ou Démonstrations du mouvement des pendules adapté aux horloges.]

[Théorie de la force centrifuge.]

28 plates, 156 ff. 4° s.l. [*circa* 1800]

The plates are engraved.

The MS. is a translation from the latin of *Christiani Hvgenii ... Horologivm* 4° Hagæ Comitvm, 1658, *Horologivm oscillatorivm* ... fol. Parisiis, 1673, and *Opuscula postuma* ... pp. 401-428 4° Lugduni Batavorum, 1703.

Chasles 3549.

Illuminating: Traité contenant La maniere de peindre en Enlumineure et de Scauoir mesler les couleurs Noms et pris des couleurs ...

12 ff. 8° s.l., s.a.

Chasles 2717.

Instruments, Astronomical: [Begins]: PRo confectione astrolabij precipue tabulā planā aptam ad quātitatem sic su' placet ... [fol. 20 *recto* begins]: Geometrie due sūt spēs. s. theo'ica et p'ctica ... [On the Quadrant.] [fol. 24 *verso* begins]: SEquit' t'ctat9 de mēsu'atōib9 ... [fol. 26 *recto* begins]: Ad faciēd' ho'alogiū solore [*sic*] p'mo fiat vna linea r'cta ... [fol. 30 *recto* begins]: [A]D componēdū Horalogiū Achas fiet dimidi9 c'cul9 ... [fol. 35 *recto* begins]: [Q]Vadrantis noticiā ... 40 ff. 4° s.l. [On f. 34 *recto*]: 1462

Diagrams in text. The MS. contains apparently several different essays.

— An Analemme contayning the most necessarie Conclusions of the Celestiall Globe, speedely, and easilie performed by righte lines with ye ruler and compas in a Circle geuen, wherby not onelie the declination of the sunne, his hight, & the hower of ye daye, maie be founde out: But also the eleuatiō of the pole, the variation of the compas, and the Meridian Line.

40 ff. fol. s.l. [sæc. XVII.]

Many diagrams. From the Lee library.

A MS. note written in the beginning of this century says: "A small piece of paper was inserted between two of the pages as a mark, on which is the date, *London Martie 1672* concerning £110 of *Edward Bowen*, ..."

— De horologijs uniuersalibus.

viii.+125 ff. 4° s.l. [sæc. XVII.]

Chasles 3552.

"Manuscrit contenant la méthode pour construire des cadrans et horloges de toutes sortes, avec figures et dessins à l'appui."

— Traitté Des Quadrans—[Description et usages du quadrant azimuthal ou analemmatique.]

68 ff., 4 blank, 16° s.l. [sæc. XVII.]

Chasles 3539.

"Curieux manuscrit de la fin du XVIIe siècle, avec cadrans, tableaux, dessins, &c."

Jacobus: Cōputus iacobi. [Begins]: [Q]Via ars ɔputiscica diu'so9 auto9 libr' m'lt' ꝑlixitatib9 et obschui'tab9 capacitati studēciū obvijs sit involuta Ideo ... 31 ff. 4° s.l. [sæc XV.]

Old Arabic figures.

Some parts are the same as in the *Computus Chirometralis* edited by Johannes Glogoviensis.

Joannes de Esthendn' [Asthelden]: Incipit Sūa Judicialis mḡri Joh'is de esthendn' De Accidentibus mundi qui fuit c'ca ānos x̄ 1340 ...

2+150 ff. fol. s.l. [*In fine*]: *Completa ē ergo h' compilacō tr̄tat9 p̄mi sūme iudicial' de accn̄tib9 mūdi ... ꝑ magistrū Johannē de astheldeñ 20 die mens' Julij Anno ... 1347 ... Explicit p'ma ꝑs ... huius sūme:—*

This is a compilation from the works of the principal astrologers divided into 12 chapters. Old Arabic numerals are used in the text and in the pagination.

Besides, there are 6 ff. with 2 tables of the co-ordinates of 17 stars and the geographical positions of 22 towns.

Joannes de Livoriis: Incipit algorismus de minutijs Joānis de liuorijs siculj. [Begins]: Modū representacionis minuta9 uulgariū et fisica9 ꝓponere īstitui. ...

8 ff. fol. s.l. [sæc. XV.]

By the same scribe as *Compositio astrolabii ... prosdocimj ...*

Chasles 3476.

Joannes Hispalensis: Ysagoge Johāis yspalensis ... de natu'is signo9: [Begins]: CIntura firmamēti in 12. e'les [equales] dist'buit' ptes ...

12 ff. fol. s.l. [*In fine*]: *Explicit quadriptitus Joh'is yspalensis ... iij. die aug'i. annis. x. cu'is. 1317: Amē.*

In the same handwriting as Thebit Ben Corath's *De imaginationibus astrologicis.*

On vellum.

Chasles 2983.

Joannes Hispanus: Incipit liber astrolabij editus a magistro iohane yspano īt'prete quē translatauit d'arabico ī latinū ut seq't'. [Begins]: Dixit iohānes cū uolu'is facere astrolabiū accipe auricalcū optimū ... 32 ff. fol. s.l. [sæc. XV.]

Diagrams. Modern numerals.

By the same scribe as *Compositio astrolabii ... prosdocimj ...*

Chasles 3476.

Kirch, Christfried: Wetter-Buch Anno 1721 vom 23 Jan. an [-31 Dec.] [Gewitter-Observationes Anno 1728.] 2 vols. 4° *Berlin*, 1721, '28

Kirch, Christine: Gewitter Observationes Anno 1730 [-1751 Oct. 23, 1753 Jan. 1-Febr. 4, 1755 Jun. 15-Aug. 24, 1755 Dec. 1-1759 Oct. 31, 1760 Jan. 1-1764 Jun. 30, 1764 Dec. 21-1770 Dec. 31, 1774 Jan. 1-April 30.] 44 vols.

4° bundle, 24 in. thick [*Berlin*, 1730-74]

Kirch, Gottfried: Observatio des Gewitters Ao 1700 Vom 16. Augusti bisz zu Ende besagten Jahres. 4 ff. 4° [*Berlin*, 1700]

Kirch, Maria Margaretha: [Meteorological Journal and Diary 1697 Jan. 1-June 30, 1701 Jan. 1-1714 May 30, 1716 April 15-1720 Dec. 17.]

4° bundle, 5½ in. thick, *Guben, Berlin, Danzig*, 1697-1720.

See 'Copernicus' Vol. III. p. 107 *et seq.*

Kolb, Johann Joseph: [Fol. 7 *recto* begins]: Specificatio Authorum: deren Rechenbücher ich Johañ Joseph Kolb ... solvirt habe. ...

[Fol. 15 *verso* begins]: Disz Rechenbüchlein Herrn Andreæ Eggen berühmten Rechen-Meisters zu Lindau im Bodensee, hat simpliciter und practice solvirt und noch mit vielerley Exempeln vermehrt ... Kolb.

3 tables, 86 ff. 8° [*Hall in Schwaben*, 1696]

The list of arithmetical works contains the titles of 117 books. The *Tabell über das Numeriren* ... is interesting on account of the nomenclature.

Neatly written.

Lacquer: Memorie om eenige soorten van Engelse Lacken te maken en van Vernissen etc. 14 ff. 8° s.l. [*circa* 1700]

— [Memorie om verscheyden soorten van Lack te maken.] 59 ff. 8° s.l. [*circa* 1700]

Two small volumes on varnishes, stains, &c.

Lagrange, Joseph Louis de: Analytical Mechanics, By J. L. Lagrange ... New Edition, Revised and Enlarged by the Author. First [Second] Volume. Paris, ... 1811 [1815] [Translated into English by R. C. Carrington.] 2 vols. s.l., 1848

Unpublished.

[La Hire, Philippe de]: [Begins]: Auertissement au Lécteur. Amy lécteur. Cosmologie est si necessaire a la vie humaine ... [Fol. 3 *recto*]: Premiere partie. Du zodiaque et de la Diuision des Signes. [Fol. 14 *recto*]: Seconde partie Des predictions en general.

1 plate, 6 tables, 44 ff. 4° s.l. [*circa* 1680]

[—] Traicté Des Triangles spheriques. 4 ff. 4° s.l. [*circa* 1680]

[—] Traicté ou practique des triangles sphériques auéc l'explication des plus beaux & vtiles problemes du premier mobile, vn abrégé de la construction de quels tables astronomiques & de la practique D' Jcelles. 11 ff. 4° s.l. [*circa* 1680]

[La Hire, Philippe de]—*continued.* [Philippi de la Hire Tabularum astronomicarum pars prior, de motibus solis et lunæ, necnon de positione fixarum, ex ipsis observationibus deductis cum usu tabularum. Adjecta geometrica methodus computandarum eclipsium per solam triangulorum analysin ad meridianum Parisiensem.] [Begins]: Abregé de la preface. Je fis faire vn grand quart de cercle astronomique de fer ... son eloignément du centre jusquau bord estoit de cinq pieds ...

20 tables, 25 ff. 4° [*In fine*]: 1687

This MS., without title or author's name, is written in French, but the heading of the tables is in Latin. The Refraction Table, the Inclination of the ecliptic, etc., agree with the figures given in Delambre's *Histoire de l'Astronomie Moderne*. The title is taken from Lalande's *Bibliographie*.

[—] Introduction a La Chronologie commencant aux Definitions de ses principes. 10 ff. 4° s.l. [*circa* 1690]

[—] Abrégé ou petit Traité de la theorie des planetes selon l'hypothese de la terre immobile & selon hypothese de la terre mobile. 8 ff. 4° s.l. [*circa* 1690]

[—] [Begins]: Vous cognoissiez vn probleme ... 5 ff. 4° s.l. [*circa* 1690]

Besides short notes on the Elements of Euclid, the Circle, and Conic Sections, there are 6 tables of constants that refer to the bodies of the Solar System.

[—] Sommaire des fractions astronomiques. 1 table, 6 ff. 4° s.l. [*circa* 1690]

[—] [Begins]: Or cequi est d'excellent en l'homme ... est que scachant la pesanteur d'un pied de terre il peut scauoir la pesanteur de toute la terre, ... 9 ff. 4° s.l. [*circa* 1690]

Treats principally on Arithmetic and Music.

[—] Discours sur les quarrez magiques. 5 ff. 4° s.l. [*circa* 1690]

Le Cat, Claude Nicolas: Neutonianisme refuté, Système mecanique de l'univers, Comètes. 8 plates, 98 ff. 4° s.l. [*circa* 1760]

Donné a D. Gourdin par Mme David fille de l'auteur.

Prettily written MS. in French, upholding Descartes' theory; written at the time of the first predicted return of Halley's Comet.

Libri, G. B. I. T.: Translation into English of the "History of the Mathematical Sciences in Italy, from the Revival of Literature, to the end of the seventeenth century, by William Libri," in 4 vols. 8° published at Paris in 1838 ... 42 ff. 4° s.l. 1848

Translation by R. C. Carrington as far as Vol. I. p. 189, or about an eighth of the whole work.

Libro detto Angelico: [Begins]: L Anno e' detto da Am. q' e' circum ... L Anno e' di dodicj mesi qualj fanno 52 settimane', e un giorno, ...

3+154+2 ff. 4° s.l. [sæc. XV.]

Many diagrams.

Treats on the construction of calendars. Pp. 108-117 contain the chief elements of the calendar for 1546—2076. The last part of the book is about the constellations and comets.

Logarithms: [Logarithms of Numbers from 1 to 432179 with equivalents in arc.] 7 vols.

4° s.l. [*circa* 1770]

The MS. is on forms pulled from a copperplate.

Lubbock, John William: [Autograph Letter to Chas. Babbage, "On the theory of the moon, and perturbations of the planets."]

3 pp. 8° *Farnborough*, 1843

Maclachlan, A.: Autograph Letter on the application of the Calculating Machine of Thomas de Colmar to Electrical Computations.

3 pp. 8° *London*, 1874

Magnetism, Terrestrial: Observations de MM. les Hydrographes des Ports sur la déclinaison et l'inclinaison de l'aiguille aimantée. En conséquence des ordres de M. le comte de Maurepas, (ministre de la Marine), du 30 Septembre 1730.

4° s.l., 1734, '35

Chasles 3729.

"Recueil de pièces manuscrites constatant les résultats d'observations faites en différents lieux."

Marquard, Andreas: Mag. Andreæ Marquardi Gnomonica. oder Unterricht von Auffreissung der Sonnen Uhren. [Anmerckungen ...]

39 ff., diagrams, 19 ff., tables, 5 ff.+318 pp.+11 ff. 4° s.l. [*circa* 1670.]

Most of the astronomical tables are from Hecker's Ephemerides. A very fine German MS.

Mechanics: ꝑpoës staticæ.

36 plates, 88 pp. 8° s.l., s.a.

At the top of the first page is written *De Brion Presbyter Sti Eustachij Parisiensis 1696.*

Chasles 2717.

— Sistéme sur le mouuement.

Frontispiece, 240 pp. 4° s.l. [sæc. XVIII.]

The author's name is on p. 218, but cannot be deciphered.

Chasles 2744.

"Il provient de la bibliothèque du médecin Le Dru, dit Comus, ancêtre de Ledru-Rollin et porte son exlibris."

Messahalah: [Begins]: [S]Cicto q' astrolabiū ē noīm grecū cuiꝯ int'petracio ē aceptio stellaꝛ ... [Ends]: Explicit astrolabiū ꝺ Mesahalā.

7 ff. fol. s.l. [sæc. XII.]

Most of the chapters are in close agreement with the edition printed at Strassburg in 1512, but some parts are more extensive in the MS.

Diagrams in text. Old Arabic numerals. On vellum.

Written in the same handwriting as *Gerardi Cremonensis Theorica planetarum.*

Messahalah—*cont.* Dicit messahala de ratione celi ✠ stellaꝛ et qualit' opaut' in mūdo. [Begins]: Deus altissimus fecit t'ram ad similitudinem spere ...

59 ff. fol. s.l. [*circa* 1350]

Distinctly written MS. on vellum, with 69 curious rudely coloured figures, tables and diagrams. Old Arabic numerals.

[—] Incip' tractꝯ d' ɔpōe astrolabij. [Begins]: Astrologie speculatoīs ex'citiū ...

2 ff. fol. s.l. [sæc. XV.]

On vellum.

Written in the same handwriting as Sacrobosco's *Computus considerationis solaris que lunaris temporis.* Some chapters agree almost verbally with *Tractatus de compositione Astrolabii Messehalath*, printed at Strassburg in 1512.

Morogues, Bigot de: Essay de l'application des forces centrales aux effets de la poudre a canon, d'ou l'on deduira Une theorie propre a perfectioner les differentes bouches a feu.

1 plate, 110 pp. 4° *Paris*, 1735

Chasles 3777.

"Manuscrit du XVIIIe siécle, présenté à l'acadèmie des sciences par Belidor au nom de Bigot de Morogues, ..."

Music: [Begins]: [E]T bestialiū voluptatū ꝑ q's gustꝯ ✠ tactꝯ suis irr'frenat' impetibꝫ intllcm̄ deiciūt nō in m'ito vitupent' excessꝯ ...

12 ff. 4° [*In fine*]: 1443

[Negro, Andalone de]: Almanach.

76 ff. fol. s.l. [sæc. XV.]

The supposed compiler was the preceptor of Boccaccio.

Concerning ff. 1-46 it says on fol. 37 *ver.*

[S]Cias qꝫ ista ta la facta ē ad mēidiē ꝑisius [Parisius] anno dn̄i. 1330. ...

and that the tables are to be used with those of Alphons. The modern numerals are used for this part, but the remainder of the MS. is in old Arabic figures.

The second part, ff. 47-61, is computed from the Alphonsine tables, but the arguments are in years, days, &c., and not on the strict sexagesimal plan of those tables.

Ff. 62-64 are reduced to the meridian of Paris, and, in common with the preceding part, give some of the quantities to sevenths and even eighths of the sexagesimal notation.

Ff. 65-77 are a reproduction of the foregoing tables, but with fewer figures.

Nemorarius, Jordanus [de Nemore, Le Forestier]: Incipit liber phyloteigni iordani de nemore lxiiij ꝓpositiones ɔtinens.

13 ff., vellum, 4° s.l. [sæc. XIII.]

This is a small treatise on plane geometry, with numerous figures on the margins.

— Incip̄ pars prima libri iordani de nemore de ratione ponderum.

11 ff., vellum, 4° s.l. [sæc. XIII.]

This tract was edited by P. Apianus and published in 4° at *Nuremberg* in 1533.

Nemorarius, Jordanus [de Nemore, Le Forestier]—*cont.* [Begins]: Ex quo mi... [The second paragraph begins]: Qvadratura circuli int' ocultas rerū adeo est obst'usa naturas...[Ends]: Erathostennes philosophus geometra q$_b$ sagacissim^{o} totius t're circuitum p̄ īmutationē gnomonis umbrarū. in terra at [que] p̄tes zodiaci igeniose dep'nsum cclii. stadia. idest xxxi. d. miliaria continere deffinivit vnicuiq$_b$ ccclx. p̄tium in zodiaco. dcc. stadia id ∔. lxxxvij. miliaria ∓ semissem deputans. ex hiis iuxta regulam c^{i}culi ∓ diamet^{i} c^{r}ssitudinem seu diametrum t^{r}re sic comp'hend'e poteris. Aufe. xx^{a}ij^{a}. partem de c^{i}cuitu t^{r}re ∓ xx^{æ}ii^{æ} vnius stadij remanent ccxldxliijj. cū semisse. ∓ xxi. p̄tib$_3$ i^{s} stadij. ho$_4$ t^{r}cia lxxx.clxxxi. s. ∓ vij. xx.^{me} ij^{de}. unius stadij t^{r}reni orbis diametrū seu spissitudinem iux^{u} p'd'ar' t^{r}re c^{r}cuitōnem dubietate postposita ɔtinet ad' liquido satis caute supputante patet q^{u}mvis mac^{o}bi^{o} [Macrobius] sup̄ sompniū cipionis idem diametrū. lxxx. stadio$_4$ tm̄ ut non multo plus dicat h'ere.

17 ff., vellum, 4° s.l. [sæc. XIII.]

The only value of π known to the writer is $\frac{22}{7}$ although he uses it in various forms, *e.g.*, if the diameter of a circle equals 14, its area will be 14×11. In the paragraph quoted the division by $\frac{22}{7}$ is effected by deducting $\frac{1}{22}$nd of the earth's circumference and taking $\frac{1}{3}$rd of the remainder, thus :—

22)252000

Subtract $11454\frac{1}{2}+\frac{1}{22}$

remain $240544\frac{1}{2}+\frac{21}{22}$

of which the third part is $80181\frac{1}{2}+\frac{7}{22}$

There is apparently nothing to show that Nemorarius was the author of this treatise except that it is written in continuation of the two preceding works, and is in the same hand with the same abbreviations. In it the works of Adelbold (†A.D. 1027) and Wazo (†A.D. 1048) are mentioned as having been studiously reconstructed by Herebert (secretary to Thomas à Becket). This sounds almost as if the writer were contemporary with Herebert, which would agree with Chasles' opinion that Nemorarius flourished towards the end of the 12th century. To Werembold, who lived at Hirschau at the end of the 10th century, the author ascribes the rule for finding the area of a circle given above.

These three small MSS., together with a tract by Gerard of Brussels, form a small volume which to judge by the device on the binding once belonged to Pope Pius the Sixth.

Nicomachus of Gerasa [Gerasenus]: *Νικομάχου γερασίνου Ἀριθμητικὴς Τῶν εἰς δύο.*

131 ff. fol., 10 ff. 4° interleaved, s.l., s.a.

A modern MS. which has been collated with various texts, probably by Eisenmann to whom it belonged.

Observatories—Dun Echt: Auxiliary Tables for facilitating the Prediction of Occultations at Dun Echt. 29 pp. 4° [*Dun Echt*, 1877]

Observatories—Dun Echt—*cont.* Micrometer refraction tables for the computation of log κ.

5 ff. 4° *Dunecht*, s.a.

Pelstare, James [Peletarius]: One booke of James Pelstare phisitian and mathematician concerning the vse of Geometry.

19 ff. fol. *Lutetiæ*, 1572

Diagrams in text.

According to a note this MS. is from a work of Peletier or Peletarius printed at Paris in 1573.

Philosophy: Iste est libell^{o} p̄uli phiē qui non dici^{r} ideo p̄uul^{o} r'one vigoris et doctrine Sed ... [Begins]: NAtura est prīcipiū et causa mouendi ... 9 ff. fol. s.l. [sæc. XV.]

— [Begins]: Circa paruuli phiē moralis principū non nulla ānotabim^{o} ...

16 ff. fol. s.l. [sæc. XV.]

Physics: Prima Mathematica Exercitatio. Geometria Prattica circà Linearum descriptionem. [Exercitatio Secunda. De Quantitatibus Incomensurabilib's. Exercitatio Tertia. Ex Terreometria et Aritmetica. Exercitatio Quarta. De Magnete, et uirtutibus Magnetis. Exercitatio Quinta. Ex Hydrostatica ... Exercitatio Sexta. De Computo ecclesiastico ex Cronologia. Pars secunda. De Sphera Armillari. Tractatus Meteorologicus. De Cometis.]

4 ff.+134 pp. 8° s.l. [sæc. XVII.]

Neatly written MS. with diagrams in text. Mentions Torricelli.

— Essay sur l'Opacité et la Diaphanéité.

69 pp. fol. s.l. [sæc. XVIII.]

Chasles 3850.

Planetary Theory: Methode facile pour f[aire] les figures et la theorie nouuelle des planettes sans Epicicles. 37 ff. 8° s.l. [sæc. XVII.]

Chasles 2717.

[Planetenbuch]: [Text begins]: Gottes huld vberal, bis fro wann sy Dir werd sol ...

19 ff., vellum, fol. s.l. [sæc. XV.]

A curious illuminated German MS. bound in wooden boards. *Katho*, *Aristotiles*, *Platho* and *Virgilius* are quaintly figured on the first page, each holding a scroll. That in the hands of the poet bears the legend :—

Reib vmb so wirt dir sagen
Das puech warvmb du wild fragen.

The injunction to "reib vmb"—*rub* over—has obviously been strictly obeyed only too often.

Prosdocimus de Beldemandis: Composicio astrolabij magistri prosdocimj de beldemādis pataui. 22 ff. fol. s.l. [sæc. XV.]

Distinctly written. Modern numerals.
Chasles 3476.

Raabe, —: Geometrie et Trigonometrie docirt von dem Herrn Capitaine u: Mathematico Raabe. In der ... Artillerie-Schule zu Dresden.
168 ff. 4° [*Dresden*] 1786

Pretty MS. with neatly drawn diagrams.

Ramellis de Masanzana, Augustin: Trésor des arts Mécaniques où L'on trouve les modéles de plusieurs Machines les unes utiles pendant la paix, les autres propres à la guerre, & dont on peut se servir au dehors et au dedans des places fortes. Composé en italien puis mis en français par ... augustin de Ramellis de Masanzana ... nouvellement traduit par H. sur la version allemande de Nenninggrossen ... imprimée à Leipzig en 1620 ... 194 ff. fol. s.l. [sæc. XVII.]

The author was Chief Engineer to Henri III., who reigned from 1575 to 1589.
Chasles 2788.

Robert, —: Tables des Logarithmes des Sinus et Co-sinus, [Tangentes et Co-Tangentes] Calculés de Seconde en Seconde, pour tous les Degrés du Quart de Cercle, Par M. L'abbé Robert Curé de S^te^ Geneviève de Toul. Première [Seconde] Partie. 2 vols.
451 ff., 451 ff. fol. [*Toul, ante* 1784]

These original MS. tables were received from their author on the 17th April, 1784, by Lalande, who afterwards purchased them. They were secured for Babbage at the sale of Delambre's library at Paris. About 1839 they were collated, for the Board of Longitude, with Taylor's Logarithm's (London, 4°, 1792) at the suggestion of Dr. Young, when 19 errors were detected in the printed tables. The logarithms are to 7 places of decimals but the differences are not given. *See* Lalande's *Bibliographie astronomique*, p. 688.

[Sacrobosco, Johannes de]: [Begins]: [O]Mnia que a p'meua rerū origine processerūt racōne nūoꝫ for'ta sunt Et quē admodū sunt res ita ꝛ cognosci habent. ... [Ends]: Explicit Algorism9 de Integris. 7 ff. 4° s.l. [*circa* 1450]

Old Arabic numerals.
Is almost verbally the same as the printed *Algorismus Domini Joānis de Sacro Busco ... Venetiis 1501.*

— Cōpot9 co'is sola'is q luna'is. t'ris ioh'is de sacro bosco. [Begins]: Cōpot9 ē sci'a ɔsid'ans t'p'ra ex sol' ꝛ luē motib9 ...
6 ff., vellum, fol. s.l. [sæc. XV.]

Old Arabic numerals.

[Sacrobosco, Johannes de] — *cont.* Iohañis. De Sacro. Busco. Spera. [Begins]: Tractatū dē spera Quattuō Capitulis distinguim9: dicētes p° Quid sit spera: quid eius centrū: quid axis spere: quid sit polus mūdi: quot sint spere ◖ In 2° d' ci'culis ... [On f. 15 *recto*]: [◖ Planetaꝫ: Theorica: Incipit:]
28 ff., one blank, 4° [*In fine*]: *Scriptus pme ... [?] Año dñi M.cccc.Lxviiii. secundo nonas februarij hora xxiij. finitus. Finis. Monticulanus. Finis.*

The second work is by Gerardus Cremonensis. This and the three following MSS. agree almost verbally with the edition printed at Venice in 1478, only the arrangement is in some places a little different.
Diagrams in text. Distinctly written.

[—] [Begins]: [T]Ractatū de spera distigvim9 in q'tuor ca.^la^ dicēs p'mo quid sit spera ...
17 ff. 4° s.l. [sæc. XV.]

— [Begins]: Tractatū de spa quatuor capit'lis distīgui9 dicētes ī p'o. Quid sit spa. ... [Ends]: Explicit t'ctatus de spa secundum magrīm. Joh'em de sacroboscho.
7 ff. fol. s.l. [sæc. XV.]

On vellum.
Bound with Thebit Ben Corath's *De imaginationibus astrologicis.*
Chasles 2983.

[—] [Begins]: Tractatū de spera. 4.^or^ capitulis distinguim9. dicētes p'mo quid sit spera ...
28 ff. 8° s.l. [*ante* 1500]

Old Arabic numerals.
On vellum. Distinctly written.

— Joh: de=Sacrobosco his booke of the Accompte of the yeere, or as it is commonlie called, the Eclesiasticall accompte.
1 plate, 51 pp. fol. [*In fine*]: *F. O. Fowler. 24. May. 1601.*

Sibert, — de: Traité de Sphere, dans lequel On Explique tout ce qui paroist du Mouvement des Astres, suivant les differens Sistemes qui placent la Terre ou le Soleil au Centre de leurs mouvemens. L'On y donne aussi les Principes de la Geographie.
21 plates, 188 pp. 4° s.l., 1720

In very good preservation, and finely written. The author's autograph is on the title page. Bound in old red morocco, with the arms of the Orleans family stamped on the sides.

Sphere: [C]Irca t'ctatum de spera. [Begins]: Nō ast°nomia sc disc'bi' Ast°nomia sʒ sci'ā q̄ ɔside'at' motū planetaꝫ ꝛ fi^am^ eoꝫd'. ...
13 ff. 4° s.l. [*circa* 1420]

Sphere—*continued.* [Begins]: Corpoꝝ p'ncipaliū mūdanoꝝ num'um fig'am ⁊ motū intendo in p'senti opusc'lo declarar'. ... [Ends]: Explicit cōmentū de Spera. 22 ff. 8° s.l. [*ante* 1500]

Is not identical with Sacrobosco's treatise on the same subject published at Venice in 1478.

Old Arabic numerals. On vellum.

— [Begins]: Circa Spḛram ma'lem tale oritur dubium Cur sphera ⁊ non circ'lꝫ dicat' cum tn̄ in plano circ'lꝫ ⁊ spḛra id' sūt q' dicīꝫ [?] circulꝫ Spheric ... 1 f. 4° s.l. [*circa* 1500]

Mentions *Johannes de Regio Monte.*

— Circa Diuisiōꝫ Spḛrḛ Mouentur 4or dubia. 1 f. 4° s.l. [*circa* 1500]

— ¶ Vniuersalis aut' mūdi machina. 2 ff. 4° s.l. [*circa* 1500]

— De Motu octaue spḛre. 2 ff. 4° s.l. [*circa* 1500]

— The Doctrine of the Sphere. Being An Improvement of Kepler's method of Calculating the Longitude and Latitude of those places where the principal phases of a Solar Eclipse shall be seen ... Part II. 23 ff.

[Astronomical Tables ...] 16 ff., 2 blank.

[Navigation.] 42 ff., 8 blank.

[Gnomonica.] 25 ff., 2 blank.

[The Description of ye Quadrant.] 12 ff.

These five treatises, which were written about the year 1720, form a small octavo volume, s.l.

Struve, F. G. W.: Ueber die Doppelsterne, etc. Rapport sur les Etoiles Doubles, ... par F. G. W. Struve ... 54 pp. 4° [*Genève*] 1827

MS. for the *Bibliothèque universelle*, etc., September, 1827, by A. Gautier.

Sullius: [Begins]: In or'one debet ēē invencō. dispō. elocuciō. memoria ꝑnūciacō. ... [Ends]: ¶ Explicit Sulliꝫ de coloribꝫ rethocis abemat'. 5 ff. 8° s.l. [*ante* 1500]

On vellum.

Sundial: Serie di orologi solari antichi. 19 drawings, 9¼ in. × 7 in., s.l. [*ante* 1826]

Drawn with the pen in Indian ink.

Swale, J. H.: Geometry of the Circle. Begun in Feby 1829: revised, improved and extended, Feby 1830. 90 pp. 8° s.l., 1830

This MS. is not in the list of Mr. Swale's MSS. as published in the *Philosophical Magazine*, July, 1852, pp. 28-33 and Sept. 1852, pp. 201-209.

Sylvius, Andreas: In libros de coelo, de ortu et interitu et de Meteoris cōmentaria ... Magistri Andreæ Syluij, societatis Jesu et Academiæ Dilinganæ Professoris ordinarij. In 4 parts. 303 pp. 4° [*In fine*]: ... 1529

[Tabulæ Astronomicæ]: Tabula horarū meridiei cum equatione dierū et noctiū simul scd'm horalogiū integrū. ... 124 ff. 4° s.l. [sæc. XV.]

A complete set of Astronomical tables. Those for the moon's motion begin with A.D. 1343. The MS. is in red and black, on paper, but there are two parchment flyleaves with astrological *schemes.*

Chasles 3427.

Tacke, Michel: Aritmetica mercantile oder Rechenbüechlein auff der welschen prattica zugebrauchenn, ... Durch Michel Tacken vonn Haal in Sachszen, geschehenn inn Venedig ... 1628. 85 ff. fol. *Venedig*, 1628

Thebith Ben Corath: Incipt lib' Thebit de ymaginacōibꝫ astroloyc'. [Begins]: Dixit thebith bencorath. et dixit aristotiles q' phy'am et geo'am et omēm sci'am lege'it ...

[fol. 2 *recto*]: Explectus ē lib' thebit. bencorath. Dixit alburahet. bonfelith. q' om'es ho'ies orientalles ... 3 ff. fol. s.l. [sæc. XIV.]

On vellum.

Chasles 2983.

— Incipit liber thebit be' torath de ymaginibꝫ astrono'ic' [Begins]: DIxit Aristotiles qui legit ph'iam ⁊ geomet'ā et ōem sci'am ... 4 ff. fol. s.l. [sæc. XV.]

The introduction only agrees with the other MS. of the same author. Old Arabic numerals.

In the same handwriting as *Quadripartitus Hermetis* ...

Chasles 2982.

Virgilius of Saltzburg:

See MSS. Wellendorfer, Virgilius.

Walker, William: [Astronomical notes and memoranda]: 56 ff. 8° s.l., 1793 ...

Mixed up with a few simple astronomical observations and sketches are many drawings of instruments, notes of visits to observatories and interviews with opticians, extracts from books, &c.

Wellendorfer, Virgilius: Caput phisicum magistri virgilii de saltzpurga. Tractatus de modo intedi hōis interioris et exterioris Incipit. 10 ff. fol. s.l. [*In fine*]: ... 1497

At the end is a rude diagram of the human body.

Wilhelm: [Begins]: Per vtilis ēplandi mōꝫ Wilhelmi Saphonēsis ordinis Incipit. 21 ff. fol. s.l. [sæc. XV.]

Zilo, Adam: De Scheeps Bouw Konst volgens de Leerwyzen van Adam Zilo ... Door Pieter Zwanenburg ... Portrait, 1187 pp. 4° s.l. [*circa* 1780]

Adam Zilo was the *Meester in dee Kunst van Pieter de Grooten.*

A printed account of Zilo's life is affixed.

Printers: Milne & Hutchison, Aberdeen.

CORRECTIONS AND ADDITIONS.

Page 10 col. 2. **Paris, Bureau des Longitudes:** Annuaire. Add—*See* p. 175, col. 1.
„ 18 „ 2. **Alkarkhî:** *for* A. Kochheim *read* A. Hochheim; [Part] I. 24 pp.
„ 25 „ 1. **Arago:** Second work, 1819; *add note:* A. J. Fresnel was joint author of this memoir.
„ 25 „ 2. **Aratus Solensis:** *append note*—*See* Theon the Younger.
„ 25 „ 2. **[Arbuthnet, J.]:** *for* Agnostino *read* Agostino.
„ 29 „ 1. **Astronomical Curiosities:** *add* to the references—*See* Bergerac, C. de.
„ 30 „ 2. **Aurora Borealis:** *insert* amongst the references: Bacherus, L.; Behn, F. D.; Boloveso, C.; Neumayer, G.; Schickard, W.; and Whiston, W., 1716.
„ 30 „ 2. **Auwers, G. F. J. A.:** *append*—*See* Herschel, W., 1862.
„ 31 „ 1. **Axon, W. E. A.:** to the paging of * Some Account ... *prefix:* 2 plates.
„ 34 „ 1. **Bagay, V.:** to the paging *add* + 615 pp.
„ 39 „ 2. *For* **Beckius, Matthia Fridericus:** *read* **Beck, Matthias Friedrich.**
„ 41 „ 1. *For* **Bellanti, Lucius:** *read* **Bellantius, Lucius.**
„ 43 „ 2. **Berti, D.:** *for* publicato *read* pubblicato.
„ 44 „ 2. At foot of works by **Beutel, T.:** *insert*—*See* Pfautz, C.
„ 46 „ 1. *For* **Engleman, W.:** *read* **Engelmann, Wilhelm.**
„ 46 „ 1. **Erlecke, A.:** *add* compare p. 177.
„ 46 „ 1. **Ersch, J. S.:** *add* compare p. 177.
„ 50 „ 2. **Bird, J.:** *append*—*See* Ludlam, W.
„ 64 „ 1. **Briga, M. della:** *add* These two treatises are really portions of the following work.
„ 72 „ 1. **Calculating Machines:** in the cross-reference, *for* Georges *read* George.
„ 94 „ 1. **Du Carla-Bonifas, M.:** *for* 41 pp. *read* 141 pp.
„ 95 „ 2. **Gadbury, J.:** *for* Nature *read* Natures.
„ 96 „ 1. *For* **Grafe, Johann Georg:** De Cometis. 14 ff. 4° *Lipsiae*, 1679, *read* **Graevius, Joannes Georgius:** Oratio de Cometis, *Contra vulgi opinionem* Cometas esse malorum nuncios. ... *Editio secvnda.* ... 4 ff. + 70 pp. 4° *Trajecti ad Rhenvm*, 1681.
„ 96 „ 2. **Guttmann, C. G.:** to the description *prefix* 2 plates.
„ 101 „ 2. *For* **Miller-Hauenfels, Albert R. V.:** *read* **Miller-Hauenfels, Albert R. von.**
„ 109 „ 1. **Galen, P. van:** *for* Wiedererscheinungen *read* Wiedererscheinung.
„ 124 „ 1. **Megerlin, P.:** for [*Bassel*] read [*Basel*].
„ 131 „ 2. *Insert* **Euler, L.:** *See* Comets, Div. I. *and* page 181, col. 1, fourth title.
„ 133 „ 2. **Gauss, C. F.:** *for* parabolicum *read* parabolicarvm.
„ 151 „ 1. **Danesi, L.:** *for* vtilitia *read* vtilita.
„ 161 „ 2. **Döllen, J. H. W.:** to the second work *add* 2 ff. + 34 pp.—The date should be 1863.
„ 164 „ 2. **Dreyer, J. L. E.:** * Note on the Effect ... *for* 10 pp. *read* 2 pp.
„ 168 „ 1. **Earthquakes:** in the cross-references *insert* Barrenechea, J. de.
„ 176 „ 2. **Venice:** Svpplementvm Ephemeridvm ... *for* 8 + 311 ff. *read* 8 ff. + 311 pp.
„ 178 „ 1. **Etten, H. van:** *for* 1853 *read* 1653.
„ 189 „ 2. **Flamsteed, J.:** Atlas Coelestis. *For* 4 ff. *read* 2 ff.
„ 191 „ 2. **Foster, H.:** to the cross-reference *append* Parry, W. E.
„ 219 „ 1. **Halma, N. B.:** to the cross-references *add* Theon the Younger.
„ 222 „ 1. **Harding, K. L.:** for *Göttingae* read *Gottingae.*
„ 240 „ 2. **Hooke, R.:** *to* A Description of Helioscopes *add* 2 plates. Lampas: *and* Lectures De Potentia Restitutiva *have each* 3 plates.
„ 255 „ 2. Line 24, *for* **Martin** *read* **Martini.**
„ 260 „ 2. *Before* **Klügel, Georg Simon:** *delete the* "—".
„ 273 „ 1. *For* **La Saussage, L. de:** *read* **La Saussaye, L. de.**
„ 290 „ 1. **Lucas de Borgo:** after notes *add*—*See* Pacioli, L.
„ 306 „ 2. For the first title *substitute*—The same. The initials are in small types or left out altogether.
„ 326 „ 1. *Before* **Basle:** *insert* **Athens:** *See* Schmidt, J. F. J., 1863 and 1869.
„ 329 „ 1. **Copenhagen:** to the cross-references *add* Schjellerup, H. C. F. C., 1864.
„ 329 „ 1. *For* **Cordova** *read* **Córdoba** in two places.
„ 372 „ 2. Line 2, *for* incundissimū *read* iucundissimū.
„ 384 „ 2. **Richer, Jean:** *add note*—This is one of the appendices to Picard's *Ouvrages de Mathématique. Amsterdam*, 1736.
„ 388 „ 2. **Römer, O.:** *append note*—This forms an appendix to Picard's *Ouvrages de Math.* 1736.
„ 465 „ 2. **Weidler, J. F.:** amongst the cross-references *insert* Bibliography.

14 DAY USE
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